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OF THE
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Indian Tariff Board Reports

on

i) Preserved fruits industry
ii) Protection of rubber manufacturing industry
iii) Sewing machine industry
iv) Phosphates and phosphoric acid industry
v) Sodium & Potassium metabisulphates "
vi) Continuance of protection to paper & paper pulp industries.
vii) Woodscrews industry
viii) Continuance of protection to the iron & steel industry.
ix) Antimony industry
x) Cotton textile machinery industry.
xi) Bichromates industry.
xii) Continuance of protection to sugar industry.

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REPORT

OF THE

Indian Tariff Board

ON THE

PRESERVED FRUITS INDUSTRY

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Indian Tariff Board

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PRESERVED FRUITS INDUSTRY

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REPORT ON THE PRESERVED FRUITS INDUSTRY

Reference to the Board.

1. The application of the Preserved Fruits Industry for grant of protection or assistance was referred to the Tariff Board by the Government of India, Department of Commerce, in their Resolution No. 218-T (55)/45, dated the 16th February 1946 (Appendix II) read with paragraphs 2, 3 and 7 of the Commerce Department Resolution No. 218-T(55)/45, dated the 3rd November 1945 (Appendix I).

Application for protection.

2. (*A*) The application for assistance or protection to the preserved fruits industry was submitted by the Indian Fruit Preservers' Association on the 30th November 1945. This Association was formed in 1941 and has on its membership roll at the present time as many as 186 fruit canning firms scattered all over the country. The claim for assistance or protection as set forth in the application is based on the following grounds :—

(i) Though fruit preservation in the form of chutney and murabbas has been carried on in India from times immemorial, the fruit preservation industry in the modern sense is only of recent origin in the country.

(ii) The industry is essential to the progress of the country's horticultural industry, because it utilises the seasonal surplus and takes care of the seasonal glut of fruits and vegetables and thus helps to avoid wastage.

(iii) India possesses all the natural advantages for the development of this industry, *viz.*, a plentiful supply of a large variety of fruits, sugar, tin and glass containers and other packing materials, coal, cheap labour, and an extensive and growing home market. There is a possibility of establishing an export market in the neighbouring countries like Ceylon, Persia, Egypt, Iran, etc.

(iv) The industry cannot hope to compete on terms of equality with the imported products, because the producers in foreign countries have got many special advantages such as large-scale production, up-to-date machinery, advanced technique, long experience, and what is more important, special concessions in regard to prices of sugar and containers and sometimes in respect of freights.

(v) Besides, the industry in India has been suffering from two sets of special handicaps :

(1) Wartime difficulties such as (*a*) insufficient supply of sugar, (*b*) insufficient supply of containers, and (*c*) restricted transport facilities.

(2) Basic handicaps such as (*a*) excessive cost of sugar, (*b*) inferior quality and high cost of containers, (*c*) high freight rates and (*d*) dearth of technical experts.

(*B*) In order to be able to counterbalance the special advantages and facilities enjoyed by foreign producers, the industry has asked for assistance or protection in the following forms :—

(i) Sugar to be supplied to the industry at or around 1 anna per lb.

(ii) Excise duty on sugar and salt used in the industry to be refunded.

(iii) Sanitary cans or tinplate for cans to be imported free of duty.

(iv) Import of bottles free of duty.

(v) Chemicals, packing materials and such other items as are commonly required by the industry to be allowed to be imported free of duty.

(vi) Machinery required by the industry to be allowed to be imported free of duty.

(vii) Reduction of railway freight on fresh fruits and processed fruits by at least 50 per cent.

(viii) A protective duty of 200 per cent. to be levied on all imported canned, bottled or cartoned fruits and vegetable products, or, alternatively, a subsidy of 4 annas per lb. on all food products produced and sold in the country to be given. If the number of factories in respect of each group of products is limited by Government, subsidies may be slightly less. Subsidy may be given for five years in respect of sales in the internal market and for 10 years in respect of sales in the export market. In case a subsidy is given, a ceiling price to be fixed for all food products, which, for the first three years should be 20 per cent. higher, and thereafter 10 per cent. higher than the wholesale price of corresponding products in America or Australia.

Method of inquiry.

3. The standard questionnaire for producers was sent to the principal firms engaged in the industry. A list of such firms will be found in Appendix III. The names of consumers and importers to whom separate questionnaires were issued will be found in Appendix IV and Appendix V, respectively. All Provincial Governments and Administrations, as also the Government of Jammu and Kashmir, were addressed to give their views on the present position and future prospects of the fruit preservation industry in their respective areas. Sardar Bahadur Lal Singh, Fruit Development Adviser to the Government of India, and Dr. Girdhari Lal, Bio-chemist, Indian Institute of Fruit Technology, Lyallpur, were also requested to furnish the Board with information regarding the problems and prospects of the industry. A list of the factories visited by or on behalf of the Board will be found in Appendix VI. Oral evidence of representatives of producers, consumers and fruit growers of Jammu and Kashmir State was taken at Srinagar on the 3rd October 1946, while the general inquiry at which all interests were represented was held at Lahore on the 11th and 12th October 1946. The Development Minister, the Director of Agriculture, and the Assistant Director of Industries, Government of Jammu and Kashmir, and the representatives of the Fruit Growers' Association, Kashmir, attended the public inquiry at Srinagar by special invitation. The lists of witnesses who were examined at Srinagar and Lahore will be found in Appendix VII and Appendix VIII, respectively.

Present condition of the industry.

4. As has been stated already, the fruit preservation industry in the modern sense is only of recent origin in the country. A few firms in Bengal, Bombay, Madras and the Punjab were engaged in this industry in the prewar period. But it was the heavy reduction of imports during the war, coupled with increased demand for preserved fruits in various forms on the part of the defence services and civilian population, which gave a stimulus to the industry, and in consequence canning factories came to be established all over the country. Some idea of the present

stature of the industry can be had from the fact that the Indian Fruit Preservers' Association has on its roll at the present time as many as 186 licensed factories including the leading ones, while we are told that some 600 more applications for licences under the Food Products Control Order are pending with the Fruit Development Adviser. The Association has also submitted a rough estimate of the present production of the industry which is as follows :—

(i) Squashes, juices, cordials, etc.—1·75 crores of qrt. bottles, valued at about Rs. 2·6 crores.

(ii) Jams, jellies, marmalades, canned and bottled fruits, etc.—24 crores of lbs., valued at about one crore of rupees.

(iii) Tomato juice, ketchup, chutneys and vinegar—65 lakhs of lbs., valued at about Rs. 48 lakhs.

(iv) Pickles—7 crores of lbs., valued at about Rs. 1·5 crores.

(v) Candied and crystallised fruits—30 lakhs of lbs., valued at about Rs. 22·5 lakhs.

(vi) Indian murabbas not less than 25 crores of lbs., valued at about Rs. 12 crores.

[*Note.*—Sardar Bahadur Lal Singh considers that this estimate is rather excessive, and specially so under item (vi).)]

Of these various items Nos. (iv) pickles and (vi) murabbas form a well established industry and are not apprehensive of any competition from imports. Items (i) squashes, juices, cordials, etc., (ii) Jams, jellies, marmalades, canned and bottled fruits, etc., (iii) tomato juice, and (v) candied and crystallised fruits, are the categories of preserved fruits which are faced with severe competition from abroad and which are stated to be in need of protection or assistance.

5. The value of the estimated production in respect of these four items, as given by the Association, comes to about Rs. 4 crores, but, in the opinion of the Board, and judging from the prewar import figures, this appears to be an overestimate. We were told that, due to the inadequate supply of sugar and certain other difficulties, the full capacity was not being utilised, the actual production at the present time being about 50 per cent. of the capacity.

6. Though the industry has developed extensively in recent years, it has yet to consolidate its position. Most of the machinery at present employed is rather inefficient, the greater part of it being improvised and fabricated in the country. Some of the processes such as peeling and coring of fruits and filling of cans are still being done by hand though the introduction of machinery would ensure the handling of the materials in a more hygienic manner and also considerably reduce the cost through savings in labour charges. The labour employed in most factories is untrained and is employed seasonally so that there is no certainty that the same batch of labourers is being employed year after year. Besides, the great majority of the factories have so far failed to secure the services of competent experts in fruit preservation.

Absence of marketing and grading facilities for fresh fruits.

7. One of the greatest handicaps from which the industry suffers at present is the absence of a well developed system of marketing of fresh fruits. There is no system of classification and grading. Besides, in some places (e.g., Srinagar), there are no organised markets for fruits. Moreover, cold storage facilities for the preservation of fresh fruits are lacking in most places.

The Indian Institute of Fruit Technology.

8. Then again, there do not appear to be sufficient research facilities on fruit canning in the country. No doubt, under special schemes approved and financed by the Imperial Council of Agricultural Research and carried out in co-operation with the Provincial Governments, a certain amount of research work on fruit preservation was being done both at Lyallpur and at Quetta for the last several years, and the progress in fruit preservation, especially in squash manufacture in the Punjab, is the direct result of the activities of Lyallpur laboratories. But the Indian Institute of Fruit Technology as such came into existence only in April 1945, which at present is functioning in the laboratories at Lyallpur where work was being done previously under the Imperial Council of Agricultural Research. It is understood that the Institute is likely to be shifted to Delhi in 1947 and expanded there greatly. Besides research, the Institute is called upon to analyse the products of the different factories and often to give technical advice on the various problems of fruit preservation that arise in different factories. It also offers a diploma course of one year's duration in fruit preservation.

Fruit Products Control Order.

9. In order to ensure that the fruit products manufactured in India conform to certain minimum standards regarding composition, handling and hygienic conditions, a Fruit Products Control Order was promulgated in the current year by the Government of India, Department of Agriculture, in consultation with the Indian Fruit Preservers' Association. Under this Order, all fruit preservation factories are required to take out a licence, to submit quarterly returns of their output of different products, and to pay a cess at the rate of 4 annas per Rs. 100 worth of products sold. It is expected that the enforcement of this Order will lead to a gradual and systematic improvement in the conditions of the industry and also help in the regular collection of statistics regarding production.

Importance of industry.

10. In any scheme of all round economic development of India for the purpose of improving the living standards of the masses of people, the development of fruit farming, among other things, must take an important place. In order to establish the fruit farming industry on a stable basis, it is essential that the fruit preservation industry also must be simultaneously developed. In the absence of a fruit preservation industry a good part of the fresh fruit generally runs to waste. The function of the fruit preservation industry in relation to the fruit growing industry is to take care of the surplus fruit in seasons of plenty and to utilise for certain bye-products the unsaleable fruit (though sound and healthy) which would otherwise go to waste. The development of the fruit preservation industry is also of importance to the future progress of other industries, such as glass and tin containers, and more particularly the sugar industry. The increased consumption of preserved fruits

in different forms will give a stimulus to the expansion of the sugar industry. It will thus be seen that the fruit preservation industry has an important bearing on the fruit growing industry and that it will be helpful in expanding the basis of the valuable sugar industry.

Raw materials.

11. Fresh fruits, sugar, containers like glass bottles and tin cans and chemical preservatives are the principal raw materials required for this industry. They are all available in the country. There is, however, much room for improvement in the quality of fruits, bottles, and cans. Fruits required for canning should be of standard varieties and sizes and of the right degree of maturity. It will, therefore, be necessary to raise the quality of fruits by an improved system of horticulture and to modernize the marketing of fruits by the adoption of classification and grading, cold storage facilities, better and quicker transport, and regulated markets. So far as sanitary cans are concerned, they are at present being largely supplied by the Metal Box Company, Calcutta, but the cans are said to be expensive and inferior in quality as compared with American cans. This Company submitted a full memorandum on the subject of supply of sanitary cans to the preserved fruits industry, and its representatives who were examined at Lahore pointed out that the inferior quality and the higher price of the cans supplied by them due to the inferior quality and higher price of the Indian tinplate they were using. They submitted estimates to show that, if they could import American tinplate, they could supply the best quality of cans at a lower price than the American cans. Thus, their price ex-factory, Calcutta, per 1,000 cans would be Rs. 119-4-5 if duty on tinplate were paid, as against the duty-paid landed cost of American cans of Rs. 134-11-0 per 1,000; and if they could import tinplates free of duty, their price per 1,000 would be Rs. 105-14-2 as against the duty-free landed cost of American cans of Rs. 110 per 1,000. As regards the quality of cans, they stated that their machinery and methods were as up-to-date as any in the world, but that, so long as they had to use the Indian tinplate, the quality of their cans would suffer because the Indian tinplate was produced by the hot-rolling process and also because palm oil was not being used in its manufacture. It came out in the course of the evidence that the American tinplate used by the fruit canners was manufactured by the cold-rolling process and that such tinplate was, in any case, bound to be superior to the hot-rolled tinplate as produced in India. So far as bottles are concerned, it was represented by the canners that the bottles supplied to them by the Indian manufacturers were unsatisfactory, both in quality and in price. It was said that there was considerable breakage amounting to as much as 20 per cent., that the glass was not of one consistency, that the mouths of bottles varied in size, and that there was no comparison in the general finish between the Indian bottles and English bottles. We were told that these defects of the Indian bottle were largely due to the lack of automatic machines in the Indian glass factories for the manufacture of the right type of bottles. This deficiency, therefore, can be removed if automatic machines are used by the Indian glass manufacturers for the purpose of manufacturing bottles.

Supply of sugar.

12. Indian canners had suffered in recent years on account of the inadequate supply of sugar for their industry. We were informed by the representatives of the Indian Sugar Mills Association that the position regarding the supply of sugar might be somewhat easier in the next year. We do not know how far this will go in satisfying the sugar requirements of the canning industry. In case it is found impossible to

supply adequate quantities of sugar from indigenous sources to the canning industry, we recommend that Government should examine the possibility of importing some quantities of sugar from abroad till the position of indigenous supply becomes easier. The representative of the Indian sugar industry agreed that the importation of a small quantity of sugar in the next two or three years for satisfying the requirements of the canning industry would not be detrimental to the interests of the sugar industry.

Process of manufacture.

13. The main object of canning fruits and vegetables is to prevent the materials from being spoilt by the action of micro-organisms like moulds, yeasts, and bacteria which are always present in the air and in most materials. The germs may be killed or made inactive by one of the two methods :—

(*a*) They may be destroyed by the application of heat where the food materials are hermetically sealed in a can or any other container, thus preventing the intrusion of fresh germs from outside.

(*b*) The germs may also be killed or made inactive by the use of certain chemicals called anti-septics or preservatives, which are harmless when applied in small, specified quantities.

14. (1) *Fruit Canning.*—Firm, ripe fruit is used in canning. It is washed, graded peeled and halved. Fruit thus prepared is put into a can taking care not to allow it to overflow. Syrup of requisite strength is then made by heating and then it is poured into the can leaving one-fourth of an inch space below the top level of the can empty. The lid is then put and the can is exhausted under steam in an exhaust box. Then the can is sealed by double seamer and sterilized in either steam or water at boiling temperature or under pressure in the case of non-acid foods for the required period of time. The can is then cooled in cold water till it attains the room temperature.

(2) *Jam.*—Fruit is peeled, cut into small pieces, and heated in a pan till it gets soft and the required quantity of sugar is added. It is then cooked upto a suitable temperature. The jam thus prepared is put into cans which are sealed while hot.

(3) *Jelly.*—Jelly is made of fruit which is rich in pectin such as guava and apple. After preparing the juice, the pulp is strained in a jelly bag and pectin solution is obtained. The solution is then cooked at a suitable temperature. A perfect jelly is clear, sparkling, transparent and of attractive colour.

(4) *Marmalade.*—Pectin solution is obtained in the same way as above from orange, galgal or ponderosa lemon and the required quantity of sugar is added. The orange peel is shredded into strips and its bitterness is removed by boiling it in water. A true fruit marmalade is clear jelly in which slices of fruit or peel are suspended.

(5) *Squash and Cordial.*—The fruit is washed and halved and the juice is then passed through the pulping machine to get rid of the seeds and fibrous matter. The juice thus obtained is mixed with sugar and water according to the recipe. If the juice is sweet, the requisite amount of citric acid is added to increase the acidity. Squash contains substantial portions of the pulp and other cellular matter but cordial is prepared from juice from which pulp and cellular matter have been removed.

15. In the period 1936-39 when there was little domestic production of preserved fruits, the average annual imports amounted to some 60,000 cwts. valued at about Rs. 17 lakhs. In the period 1942-45 the average annual imports amounted to about 16,000 cwts. valued at Rs. 7 lakhs. To this must be added the estimated value of the domestic output of the fruit products, which it is difficult to estimate. Due to the growth of the new habit of eating canned fruits on the part of large numbers of people who were employed in military service during the war and also due to the expansion of urban and industrial population, the consumption of preserved fruits will go up in the future.

Domestic consumption.

"16. The principal sources of import in the pre-war period were the U. K., the Straits Settlements, Australia and the U.S.A., and in the war period they were Australia and South Africa. A statement of imports, by quantity and value and countrywise, will be found in Appendix IX.

Imports.

17. No accurate figures are available regarding the domestic output. As stated earlier in the report, most of the factories were started during wartime with improvised and inadequate machinery. When the factories are equipped with up-to-date machinery as many intend to do in the near future, and when an adequate quantity of sugar is supplied to them and transport facilities improve, domestic output should be capable of very considerable expansion within the next three years.

Domestic production.

18. We were told that some quantities of squash were being exported out of India. We were also informed that in spite of an overall shortage of food in the country, Government had permitted the export of 10 per cent. of the total preserved fruits produced in the country so as to enable the fruit preservers to renew their contact with the prewar export markets. We could not, however, get the necessary details regarding the volume and value of exports and their destination.

Exports.

19. Representatives of consumers stated before us that certain brands of Indian squashes, cordials, marmalades and jams were as good as the imported varieties while Indian tomato juice and canned fruits were definitely inferior. The inferior quality of some of the Indian products is undoubtedly due to the absence of proper selection of fruits for canning, insufficient care regarding the observance of proper ratios between fruits and sugar and other ingredients, careless handling of the raw materials, inferior quality of cans and bottles and lack of proper care in canning and bottling and storing. The process of manufacture is rather a simple one. It however requires expert supervision, installation of up-to-date machinery and proper care in handling and storage. When these improvements are effected, we have no doubt that the quality of the Indian product will be as good as that of the imported product.

Quality of the indigenous product.

20. The Board's Cost Accounts Officer investigated the cost of production in three factories, *viz.*, Madhu Canning Factory, Bombay, Indian Mildura Fruit Farm, Renala Khurd, District Montgomery, and Ravenscroft, Srinagar. The first factory is mainly producing tomato juice, tomato puree, tomato ketchup, mangoes and pineapples ; the second lemon squash, orange squash,

Estimate of cost of production.

lime cordial, plum jam, orange marmalade and figs; and the third William pears, peaches, apricots, apricot jam, cherry jam and plum jam. It was obviously impossible for the Board to ascertain the cost of production of all these products and compare them with landed costs. The Board, therefore, selected canned pears and peaches, apricot jam and orange marmalade, and orange squash as the most representative types for this purpose. The accounts of the Madhu Canning Factory were not kept in a form appropriate for preparing an estimate of the unit cost. On the basis of such materials as could be gathered from the account books of the other two firms, certain provisional estimates of cost were made, which were later on modified in the light of observations of practice in the factories, and also of detailed discussion with experts and representatives of the industry at Srinagar, Lahore and Bombay respectively. The final estimates as adopted by the Board are given in the following tables :—

TABLE I

Estimate of cost of one case (24 × A2½ Sanitary cans ; content weight 45 lbs.) of Fruit in Syrup for the period 1947-50.

(Estimated output = 10,00,000 lbs.)

	Pears			Peaches		
	Quantity	Rate	Amount in Rs.	Quantity	Rate	Amount in Rs.
1. Materials—						
(*a*) Fruit (including wastage).	37·5 lbs.	Rs. 11 per md.	5·030	40·5 lbs.	Rs. 23 per md.	11·360
(*b*) Sugar ..	9·0 lbs.	Rs. 26 per md.	2·854	12·0 lbs.	Rs. 26 per md.	3·805
Total materials cost ..			7·884	..		15·165
2. Labour			0·771	..		0·771
3. Other expenses			2·133	..		2·133
4. Depreciation			0·513	..		0·513
5. Research and development. ..			0·234	..		0·234
6. Packing			7·085	..		7·085
7. Advertisement			0·900	..		0·900
8. Interest on working capital at 4% on Rs. 2 lakhs. ..			0·360	..		0·360
			19·880			27·161

TABLE I—*contd.*

	Pears,			Peaches		
	Quantity	Rate	Amount in Rs.	Quantity	Rate	Amount in Rs.
Less—Excise duty on sugar at Rs. 3 per cwt. if sugar is supplied free of excise duty.	..		0·241			0·321
Less—Reduction in cost of cans if tinplate for cans is imported duty-free.	..		0·545			0·545
Total deductions	..		0·786			0·866
Cost of production after adjustment of excise duty on sugar and import duty on tinplate.	..		19·094			26·295
9. Spoilage at 5% ..	..		0·943			1·303
			20·037			27·598
10. Freight allowance ..	..		1·313			1·313
Net cost of production ..	..		21·350			28·911
11. Return on fixed capital at 10% on Rs. 2 lakhs.	..		0·900			0·900
Fair selling price ..	..		22·250 or Rs. 22-4-0 per case			29·811 or Rs. 29-13-0 per case.

Assuming that pears represent 60 per cent. and peaches 40 per cent. of the total output, average fairselling price for the category.

$$= \frac{(\text{Rs. } 22\text{-}4\text{-}0) \times 60 + (\text{Rs. } 29\text{-}13\text{-}0) \times 40}{100}$$

$$= \text{Rs. } 25\text{-}4\text{-}5 \text{ per case.}$$

TABLE II

Estimate of cost of one case (48 × 1½ lb. cans ; content weight 72 lbs.) of Jam and Marmalade for the period 1947-50

(Estimated output—10,00,000 lbs.)

	Appricot Jam.			Orange Marmalade		
	Quantity	Rate	Amount in Rs.	Quantity	Rate	Amount in Rs.
1. Materials—						
(a) Fruit(including wastage).	54 lbs.	Rs. 21 per md.	13·829	54 lbs.	Rs. 11 per md.	7·244
(b) Sugar ..	48 ,,	Rs. 26 per md.	15·219	48 ,,	Rs. 26 per md.	15·219
Total materials cost ..	..		29 048	..		22·463
2. Labour ..	..		1·233	..		1·233
3. Other expenses ..	..		3·413	..		3·413
4. Depreciation ..	..		0·820	..		0·820
5. Research and development.	..		0·375	..		0·375
6. Packing ..	..		11·222	..		11·222
7. Advertisement ..	..		1·440	..		1·440
8. Interest on working capital at 4% on Rs. 2 lakhs.	..		0·576	..		0·576
			48·127			41·542
Less—Excise duty on sugar at Rs. 3 per cwt. if sugar is supplied free of excise duty.	..		1·284			1·284
Less—Reduction in cost of cans if tinplate for cans is imported duty-free.	..		1·008			1·008
Total deductions	..		2·292			2·292
Cost of production after adjustment of excise duty on sugar and import duty on tinplate.	..		45·835			39·250

TABLE II—*contd.*

	Appricot Jam			Orange Marmalade		
	Quantity	Rate	Amount in Rs.	Quantity	Rate	Amount in Rs.
9. Spoilage at 5%			2·273			1·944
			48·108			41·194
10. Freight allowance			2·875			2·875
Nett cost of production ..			50·983			44·069
11. Return on fixed capital at 10% on Rs. 2 lakhs. ..			1·440			1·440
Fair selling price			52·423 or Rs. 52-6-9 per case.			45·509 or Rs. 45-8-2 per case.

Average fair selling price for the category $= \frac{\text{Rs. 52-6-9 + Rs. 45-8-2}}{2}$

= Rs. 48-15-6 per case.

TABLE III

Estimate of cost of one case (12 × 26 oz. bottles ; content weight 24 lbs.) of Orange Squash for the period 1947-50

(Estimated output—20,00,000 lbs.)

	Quantity.	Rate	Amount in Rs.
1. Materials—			
(*a*) Fruit (including wastage) ..	17·14 lbs. ..	@ Rs. 13 per md.	2·717
(*b*) Sugar ..	10·80 ..	@ .. 26	3·424
(*c*) Other materials ..			0·427
Total materials cost ..			6·568
2. Labour ..			0·422
3. Other expenses ..			0·922
4. Depreciation ..			0·117
5. Research and development ..			0·125

TABLE III—*contd.*

	Quantity	Rate	Amount in Rs.
6. Packing ..			6·643
7. Advertisement ..			0·240
8. Interest on working capital @ 4% on Rs. 2 lakhs.			0·069
			15·133
Less—Excise duty on sugar at Rs. 3 per cwt. if sugar is supplied free of excise duty.			0·289
Cost of production after adjustment of excise duty on sugar.			14·844
9. Spoilage at 5% ..			0·736
			15·580
10. Freight allowance ..			1·750
Nett cost of production ..			17·330
11. Return on fixed capital at 10% on Rs. 2 lakhs.			0·240
			17·570
Fair selling price ..			or Rs. 17-9-1 per case.

TABLE IV

Statement of Standard Proportions of Fruit and Sugar

Product	Fruit including wastage		Sugar		Remarks
	per can	per case	per can	per case	
1. Canned Pears..	25 ozs. (*a*).	37·5 lbs. (*b*).	6 ozs. (*a*).	9 lbs. (*b*).	(*a*) A2½ cans, content 30 ozs. (*b*) 24 cans, content 45 lbs.
2 Canned Peaches..	27 ozs. (*a*)	40·5 lbs. (*b*).	8 ozs. (*a*).	12 lbs. (*b*)	
3. Appricot Jam ..	12 ozs. (*c*).	54 lbs. (*d*)	10·7 ozs. (*c*).	48 lbs. (*d*).	(*c*) 1½ lbs. cans, content 24 ozs. (*d*) 48 cans, content 72 lbs.
4. Orange Marmalade.	12 ozs. (*c*).	54 lbs. (*d*).	10·7 ozs. (*c*)	48 lbs. (*d*).	
5. Orange Squash .	22·9 ozs. (*e*).	27·14 lbs. (*f*).	14·4 ozs. (*e*)	10·8 lbs. (*f*).	(*e*) 26 ozs. bottles content 32 ozs. (*f*) 12 bottles, content 24 lbs.

TABLE V

Statement of Labour Costs

Name of firm	Estimate of labour cost	Estimated production in lbs.	Estimated labour cost per lb.	Canned fruits content weight 45 lbs.	Jams Marmalades content weight 72 lbs.	Orange squash content weight 24 lbs.
	Rs.		Re.	Re.	Rs.	
1. Ravenscroft Ltd.:	17,130	10 lakh lbs.	0·01713	0·771	1·233	
2. Indian Mildura Fruit Farm Ltd.	35,100	20 lakh lbs.	0·01755			0·422

TABLE VI

Statement of other Expenses and Depreciation

	Indian Mildura Fruit Farms Limited, Renala Khurd	Ravenscroft Ltd., Srinagar.
	Rs.	Rs.
Other Expenses—		
Power and Fuel	5,150	2,508
Repairs and Maintenance	1,500	200
Consumable Stores	3,900	400
Establishment	45,350	32,800
Printing, Stationery, Postage etc...	4,000	1,500
Insurance	1,800	2,707
Laboratory	500	500
Rents, Rates and Taxes	24	450
Directors' Fee	Nil	1,500
Auditors' Fee	2,500	750
Managing Agents	....	....
Water and Light	300	425
Legal Charges	300	600
Medical Charges	1,500	600
Travelling	7,500	1,500
General	2,500	1,000
	76,824	47,440
Depreciation	9,814	11,377

TABLE VI—*contd.*

	Indian Mildura Fruit Farms Limited, Renala Khurd	Ravencroft Ltd., Srinagar
Other Expenses—contd.	Rs.	Rs.
Other overheads—rate per lb.	0·0384	0·0474
Depreciation—rate per lb.	0·0049	0·0114
Other overheads—rate per case of 24 lbs.	0·922	....
Other overheads—rate per case of 45 lbs.	....	2·133
Other overheads—rate per case of 72 lbs.	....	3·413
Depreciation—rate per case of 24 lbs.	0·117	....
Depreciation—rate per case of 45 lbs.	....	0·513
Depreciation—rate per case of 72 lbs.	....	0·820

TABLE VII

Statement of Packing Costs

	Case of 24 × A2½ cans	Case of 48 × 1½ lb. cans	Case of 1 doz. 26 ozs. bottles
	Rs.	Rs.	Rs.
Cans	4·110	7·647	....
Bottles	....	....	3·844
Labels	0·600	1·200	0·300
Packing case etc.	2·375	2·375	2·499
	7·085	11·222	6·643

Costs of cans and bottles shown above are the landed costs at the factory. For damages in transit an allowance of 5% in the case of cans and 12½% in the case of bottles has been given.

TABLE VIII

Percentage Statement of Fair Selling Price of Canned Fruits, Jam and Marmalade and Orange Squash

	Pears	Peaches	Apricot Jams	Orange Marmalade	Orange Squashes
1. Fruit	22·65	38·11	26·38	15·92	15·46
2. Sugar (plus other materials).	11·74	11·68	26·58	30·62	20·27
3. Labour	3·47	2·59	2·35	2·71	2·41
4. Other expenses including research and development.	10·64	7·94	7·22	8·32	5·96
5. Depreciation	2·31	1·72	1·56	1·80	0·66
6. Packing	29·39	21·94	19·48	22·44	37·81
7. Advertisement	4·04	3·02	2·75	3·17	1·36
8. Interest on working capital .	1·62	1·21	1·11	1·27	0·55
9. Spoilage	4·24	4·37	4·34	4·27	4·19
10. Freight allowance ..	5·90	4·40	5·48	6·32	9·96
11. Return on fixed capital ..	4·04	3·02	2·75	3·16	1·37
	100·00	100·00	100·00	100·00	100·00

Comments on the estimates of cost of production.

21. (i) (*a*) *Raw materials.*—Since the three factories which were costed had not kept any systematic records of the proportions of the principal raw materials used, *viz.*, fruit and sugar, the estimates furnished by the managements of the factories could not be taken as accurate. It was, therefore, decided to adopt the figures as given by Dr. Gi dhari Lal, Biochemist, Indian Institute of Fruit Technology, Lyallpur, which were based upon experiments and experience at the Lyallpur Institute, and which were generally accepted by the representatives of the industry. These will be found in Table IV. There was also some difficulty experienced in estimating the probable future prices of fruits, representatives of different factories giving different prices. Ultimately, as a result of discussion, certain prices of fruits were agreed to, and these were accepted by the Board. It may be mentioned that the prices, as allowed in the

estimate of cost of production, are somewhat higher than the prices as indicated by the growers' representatives in Srinagar. The list of prices as agreed to at Srinagar and at Lahore respectively are given below :—

	Srinagar	Lahore
	Rs. a. p.	Rs.
Apricot per maund	12 8 0	20
Oranges per 100	....	5
Peaches per maund	15 0 0	22
William Pears per maund	8 0 0	10

It was agreed that the Srinagar prices could not be taken as representative for the whole of India. Consequently, the prices agreed to at Lahore were taken as a basis for the estimate of cost. It was also agreed that 200 oranges on an average should be taken as making one maund of weight. To these prices has been added rupee one per maund for cartage from the market or the railway station to the factory.

(*b*) *Sugar.*—As regards the price of sugar, we had originally taken the average of the actual costs of sugar at the three factories, which came to Rs. 18-8-0 per maund. With effect from the 23rd October 1946, however, the Government of India have raised the ex-factory price of sugar to Rs. 24 per maund in the Punjab and in the North West Frontier Province, and to Rs. 20-14-0 per maund in all the other Provinces. As our estimate of cost has been prepared with special reference to the conditions in the Punjab region, we have allowed a price of Rs. 26 per maund inclusive of cost of gunny bags and of freight from a sugar factory to a canning factory. This includes roughly Rs. 1-6-0 on account of the railway freight over an average distance of about 600 miles and annas 10 for the cost of gunny bags, cartage, octroi, etc.

(ii) *Labour.*—It was decided to take the labour costs of the Ravenscroft Factory as representative in respect of canned fruits, jams and marmalades, and those of the Mildura Factory as representative in respect of squashes. It is estimated that the labour costs of the Ravenscroft Factory for an estimated production of 10 lakhs of lbs. of canned fruits, jam and marmalade would be Rs. 17,130, and the labour costs of the Mildura Factory for an estimated output of 20 lakhs of lbs. would be Rs. 35,100. The labour costs per case of canned fruits, jam and marmalade, and orange squash are worked out on this basis in Table V.

(iii) *Other expenses.*—Under the head "other expenses" are included the estimated expenditure on account of power and fuel, repairs and maintenance, consumable stores, establishment and other general overheads, generally on the basis of figures obtained at the Mildura Factory for squashes and at the Ravenscroft factory for other products. Details are given in Table VI.

(iv) *Research and development.*—The expenditure under this item has been allowed at the rate of 1 pie per pound of output which works out to about ·9 per cent. of fair selling price in the case of canned fruits, about ·8 per cent. in the case of jams and marmalades, and about ·7 per cent. in the case of squashes, the average being about ·8 per cent. Under the Fruit Products Control Order, a cess at the rate of annas 4 per Rs. 100 worth of product is collected at present. We recommend that the Fruit Products Control Order should be amended so as to raise the cess to Re. 1 per Rs. 100 worth of product, the value of product for the assessment of the cess being calculated on the same basis as at the present time. Of the total amount

so collected, one-fourth should be spent for the administration of the Control Order and the balance should be set aside in a special Research and Development Fund, to which an equal contribution should be made by the Government of India. This special fund should be administered by an appropriate committee consisting, among others, of representatives of Government, the Indian Council of Agricultural Research, the Board of Scientific and Industrial Research, the Industry, and the fruit growers.

(v) *Packing.*—Details of packing cost are shown in Table VII. The cost of cans is worked out at the rate supplied by Metal Box. The figure taken is the landed cost at the factory including an allowance of 5 per cent. for damages in transit. For bottles, an average rate of Rs. 41 per gross inclusive of freight charges up to the factory is taken with an allowance of 12½ per cent. for breakages in transit. For labels, an average rate of Rs. 25 per thousand is adopted.

(vi) *Interest on working capital.*—It was estimated that the working capital of Rs. 2 lakhs would be sufficient for a representative canning factory such as Ravenscroft and Mildura. Interest on working capital has been allowed at 4 per cent. per annum.

(vii) *Refund of excise duty on sugar.*—There can be no doubt that the high cost of sugar in India is a severe handicap to the Indian preserved fruits industry. In our opinion, the least that should be done to mitigate this handicap is to grant a refund of the excise duty on sugar used in the production of the three categories of preserved fruits to be protected, namely, (i) canned fruits, (ii) jams, jellies and marmalades, and (iii) squashes, juices and cordials. The present rate of excise duty is Rs. 3 per cwt. or *Rs. 0·0268 per lb.* of sugar. The amount of refund in the table of cost of production has been calculated on the basis of the quantity of sugar used in the case of each product.

(viii) *Cost of cans.*—As stated earlier in the report, the cans at present made out of Indian tinplate are inferior in quality and are expensive as compared with American cans. It is estimated that the requirement of tinplate for making sanitary cans for the preserved fruits industry would be between 500 and 600 tons per annum in the next three years. It is possible that, with the development of the industry under the stimulus of protection, its requirement of tinplate might go up to even 1,000 tons per annum. Since packing constitutes one of the biggest items of cost of production, we consider it important that the cost of packing should be reduced as much as possible. Further, as the keeping quality of the products depends partly at least on the quality of the tinplate used for cans, we think it desirable that the best quality of tinplate should be made available to the manufacturers of sanitary cans. Both these advantages can be secured for the preserved fruits industry by importing American tinplate and supplying it free of duty to the can manufacturers. In view of the fact that the Indian tinplate industry is a protected industry, we have considered whether the importation of tinplate of the requisite quality from the U.S.A. free of duty would be detrimental to the interests of the Indian tinplate industry. We discussed the matter at length with the representative of the Tinplate Company and he agreed that the importation of 500 to 600 tons of tinplate free of duty at the present time for fabricating sanitary cans for the industry would not be detrimental to the interests of the Indian tinplate manufacturers, particularly because the supply of Indian tinplate at the present time falls far short of the demand in the country. We, therefore, recommend that Government should take

early steps to import the requisite quantity of tinplate from the U.S.A. and that this tinplate should be supplied free of duty to the manufacturers of sanitary cans in this country. At the present time the biggest producer and supplier of these tin cans is Metal Box Co., who have got an up-to-date plant in Calcutta and who propose in the near future to instal more plants in Bombay, Madras and other places. They have also assured us that, if the American tinplate could be imported by them, they could supply sanitary cans to the Indian canners at a price (ex-factory, Calcutta) lower than the landed cost of American cans. The comparative figures given by the Company are as follows :—

	Price per 1000 of Metal Box A2½ cans ex-factory, Calcutta	Price per 1000 of American A2½ cans (Landed cost Indian port)
	Rs. as. p.	Rs. as. p.
Made of Indian tinplate	127 8 0	....
Made of American tinplate (duty paid) ..	119 4 5	134 11 0 (duty paid.)
Made of American tinplate (duty-free) ..	105 14 2	110 0 0 (duty-free.)

But we were informed in the course of the oral evidence that some of the fruit canners have got their own can-making plants and that there are also other can makers in the country. We, therefore, recommend that the imported tinplate should be made available free of duty to recognised can-makers in the country. Reduction of cost on account of the supply of duty-free imported tinplate has been calculated in the cost sheets on the basis of data supplied by Metal Box, which show that the cost will go down by Rs. 21-9-10 per 1000 in the case of A2½ cans and by Rs. 20 per 1000 in the case of 1½ lbs. cans. A nominal amount has also been deducted on account of a corresponding decrease in octroi charges on cans.

(ix) *Spoilage.*—Spoilage has been allowed at 5 per cent. of cost of production less allowance for research and development. This is necessary to cover spoilage in stock and in transit. Such spoilage is unavoidable in the peculiar circumstances of the industry.

(x) *Freight allowance.*—To the cost of production thus arrived at should be added a reasonable allowance for freight so as to place the indigenous producers on a footing of equality with the importers at the principal consuming centres. In this particular case, the principal consuming centres are port cities like Karachi, Bombay, Madras and Calcutta, but considerable quantities of canned fruits are also consumed in inland cities like Lahore, Delhi, Cawnpore, Nagpur, Patna, Bangalore, Hyderabad and Mysore. On the other hand, the canning factories are to be found both in the ports like Calcutta and Bombay and in inland centres like Lahore, Delhi and Peshawar. Taking into account the present distribution of the producing and consuming centres in the country, it was thought that the needs of the case would

be met if Lahore were regarded as a representative producing centre and Bombay as a representative consuming centre and the freight from Lahore to Bombay on half the products were included in the cost of production. This has been done. The railway freight between Lahore and Bombay is approximately Rs. 5 per maund. Allowance at half the above rate per maund has been included so as to put the indigenous products on parity with the landed cost of the imported products at the ports. For this purpose the weight of the pack in the three cost sheets has been taken as follows :—

24—A2½ can pack	..	65 lbs. (pears and peaches).
48—1½ lb. can pack	..	95 lbs. (jams).
12 bottles of squash pack	..	58 lbs. (squashes).

(xi) *Return on fixed capital.*—It was estimated that a sum of Rs. 2 lakhs for the block capital would be adequate for an up-to-date factory of a reasonable size. It may be mentioned that the present value of the block of the Madhu Canning Factory is Rs. 40,211 ; of the Mildura Factory Rs. 2,03,643 ; and of Ravenscroft Rs. 93,815, and that the estimated future values of the blocks with the proposed extensions and improvements at these three factories are : Rs. 2,30,000, Rs. 2,53,000 and Rs. 2,07,000, respectively. Considering the values of the present blocks and the future blocks as proposed by the factories, the Board thought that a sum of Rs. 2 lakhs should be adequate for this purpose. Return on the block has been allowed at 10 per cent. per annum.

Existing duties.

22. The existing duties on fruit products are as follows :—

Item 20	..	Jams, jellies, etc., canned or bottled—30% *ad valorem.*
Item 20 (1)	..	Fruit juices—
		(i) Standard rate 36% *ad valorem.*
		(ii) Preferential rate in favour of a British Colony —24% *ad valorem*, and
		(iii) Preferential rate in favour of Burma—12% *ad valorem.*
Item 20 (2)	..	Fruits and Vegetables, canned or bottled—
		(i) Standard rate 36% *ad valorem.*
		(ii) Preferential rate in favour of a British Colony—24% *ad valorem*, and
		(iii) Preferential rate in favour of Burma— 12 % *ad valorem.*

23. The main source of imports of canned fruits, jams and marmalades etc., at the present time is Australia. Inquiries from chief importers show that no squashes have been imported into India in recent months. The latest and lowest prices of imports, so far as we have been able to ascertain, are as follows :—

Cost of imports.

(A)

AUSTRALIAN FRUITS IN SYRUP

Cost per case of 2 doz. 30 oz. cans

——	Pears	Peaches	Average
	Rs. a. p.	Rs. a. p.	Rs. a. p.
C.i.f.	16 4 1	15 11 5	15 15 9
Duty at 36 per cent. ..	5 13 8	5 10 6	5 14 1
Clearing charges ..	1 4 0	1 4 0	1 4 0
Landed cost ..	23 5 9	22 9 11	23 1 10

(B)

AUSTRALIAN JAMS AND MARMALADES

Cost per case of 48 × 1½ lb. cans

——	Jams	Marmalades	Average
	Rs. a. p.	Rs. a. p.	Rs. a. p.
C.i.f.	27 1 0	29 3 0	28 2 0
Duty at 30 per cent.	8 1 4	8 12 1	8 6 9
Clearing charges	1 0 0	1 0 0	1 0 0
Landed cost	36 2 4	38 15 1	37 8 9

(C)

As squashes and fruit juices have not been imported into the country in recent months, it was not possible for us to ascertain the exact prices of imported squashes,

juices and cordials at the present time. On the basis of the latest quotation, f.o.r. Australia, for squashes, we estimate the lowest prices of imported squashes as follows :—

Estimated prices of imported Australian squashes per doz. standard (26 oz.) bottles

	Rs. a. p.
F.o.r. Australia	11 4 7
Freight, insurance, etc., at 15% of f.o.r. price	1 11 1
C.i.f.	12 15 8
Duty at 36%	4 9 5
Clearing charges	0 8 0
Landed cost	18 1 1

Measure of protection.

24. In order to determine the amount of protection for the preserved fruits industry, we have to find out the margin of difference between the fair selling prices of representative categories of indigenous products and the costs of competing imports. In the light of all available evidence, we came to the conclusion that canned pears and peaches should be regarded as representative of all canned fruits, apricot jam and orange marmalade as representative of all jams, jellies and marmalades, and orange squash as representative of all fruit juices, squashes and cordials. In the case of indigenous fruits in syrup, we have taken, as suggested by the industry, the weighted average of the fair selling prices of pears and peaches in the ratio of 60 to 40, while in the case of jams and marmalades, we have taken the simple average of the fair selling prices of the two articles. Similarly, in the case of imported fruits in syrup, we have taken the simple average of canned peaches and apricots.

Measure of protection

—	Fruits in syrup 24 × A2½ (30 oz.) cans.	Jams and marmalades 48 × 1½ lb. cans	Squashes 12 × 26 oz. bottles
	Rs. a. p.	Rs. a. p.	Rs. a. p.
A—Average fair selling price of indigenous products.	25 4 5	48 15 6	17 9 1
B—Comparative c.i.f. price without duty.	15 15 9	28 2 0	12 15 8
C—Clearing charges ..	1 4 0	1 0 0	0 8 0

Measure of protection—contd.

	Fruits in syrup 24 × A2½ (30 oz.) cans	Jams and marmalades 48 × 1½ lbs. cans	Squashes 12 × 26 oz. bottles
	Rs. a. p.	Rs. a. p.	Rs. a. p.
D—Landed cost without duty (B & C).	17 3 9	20 2 0	13 7 8
E—Amount of duty necessary (A—D).	8 0 8	19 13 6	4 1 5
F—Necessary duty as percentage of c.i.f.	50·3	70·5	31·9
G—*Existing duty*—			
(i) Standard rate ..	36%	30%	36%
(ii) Preferential, British colony.	24%	....	24%
(iii) Preferential, Burma ..	12%	....	12%

It will be seen that on the basis of comparison between the fair selling price for the Indian manufacturer and the likely cost of importation, the amount of duty necessary to safeguard the home industry is 50·3 per cent. in the case of fruits in syrups, 70·5 per cent. in the case of jams and marmalades, and 31·9 per cent. in the case of squashes, but we are recommending the levy of a duty of 60 per cent., 80 per cent., and 40 per cent., respectively. We are deliberately making this recommendation, so that the additional duty, which ranges from about 8 per cent. to 10 per cent. would enable the Indian manufacturer to overcome the strong prejudice against the indigenous product with which he has to contend in order to survive. The extra margin should also enable him to establish himself in the market by offering the Indian products at a price slightly but definitely lower than the imported product. We hope that it would be possible for the Indian manufacturer to offer their goods approximately 10 per cent. cheaper than the imported goods. This, in our opinion, should be sufficient margin to enable the Indian manufacturer to neutralise the prejudice that exists. It must, however, be clearly understood that during the period of protection recommended by us the Indian manufacturer should take all possible steps to overcome such prejudice and that, in any case, if this industry comes for re-examination at the end of the protection period, there should be no need for any such additional cushion in the matter of duty. It is possible that within the proposed period of protection, these products may be imported from countries other than Australia. We have evidence that South African jams and marmalades were being imported as lately as June 1946, the duty-paid landed cost per 48 × 1½ lb. cans averaging Rs. 17-10-0 as compared with the duty-paid landed cost of Australian jams and marmalades per 48 × 1½ lb. cans of Rs. 37-8-9 taken

by us for purposes of comparison. That is to say, as recently as June 1946, South African jams and marmalades were imported into the country at a price which was less than 50 per cent. of the present price of imports from Australia. This is a further justification for an additional margin by way of cushion between the fair selling prices of Indian products and the duty-paid landed costs of imports. At the same time, we think it desirable that, in the case of this industry, of which the future competitive efficiency will depend a good deal on scientific methods of production and improved organisation, both in its agricultural and manufacturing aspects, the margin of protection should not be so high as to blunt the edge of all incentive to progress and thus to perpetuate inefficiency. There is evidence to show that certain sections of the industry have been none too careful in keeping a strict watch over the cost of production. We recommend that a proper system of keeping accounts should be followed by the industry, using standard units of weights and measures in the case of materials used, so that, should the industry come up again for review at the end of the present protection period, it would be possible to work out the cost of production without much trouble. The standard rate of duty on canned fruits—Item 20 (2), Import Tariff Schedule—should be raised from 36 per cent. to 60 per cent. *ad valorem*, the rate on jams and on marmalades—Item 20—from 30 per cent. to 80 per cent. *ad valorem*, and the rate on squashes—item 20 (1)—from 36 per cent. to 40 per cent. *ad valorem*; the duties should be made protective and they should remain in force for the period ending 31st March 1950. Should the landed cost of imports without duty fall by 5 per cent. or more below those we have taken for the purpose of comparison, the protection of the industry would be jeopardised. In such an event, it would be open to the industry to appeal to Government to invoke section 4 (*1*) of the Indian Tariff Act of 1934 and to raise the duties to the necessary level. The preferential rates in favour of British colonies and Burma should be abolished.

Classification of imported fruit products.

25. The existing classification of fruit products in the Import Tariff Schedule is as follows :—

Item No. 8	..	Fruits, all sorts, fresh, dried, salted or preserved, not otherwise specified.
Item No. 20	..	Vegetable product, jams, jellies, pickles, chutnies, sauces, and condiments, canned or bottled.
Item No. 20 (1)	..	Fruit juices.
Item No. 20 (2)	..	Fruits and vegetables, canned or bottled.

It was submitted to us that the existing classification is not very satisfactory as it (1) lumps together articles of different kinds and (2) prevents proper statistical analysis either of imports or of indigenous production. We therefore recommend that the following classification should be adopted in future in the Import Tariff Schedule, in the account of Sea-borne and Frontier Trade and also in the statistics of the Food Products Control Order.

Item No. 8	..	Dried fruits (salted and all other kinds).
Item No. 8 (1)	..	Fruits, all sorts, not otherwise specified.
Item No. 20	..	Canned and bottled fruits.

Item No. 20 (1)	..	Canned and bottled vegetables.
Item No. 20 (2)	..	Fruit juices, squashes, cordials and syrups.
Item No. 20 (3)	..	Jams, jellies, marmalades, candied and crystallised fruits.
Item No. 20 (4)	..	Ketchups, chutnies, sauces, vinegar, canned or bottled.

26. Although all these items are at present covered by the indigenous industry, we confined our inquiry only to items 20, 20 (2) and 20 (3) of the suggested new classification, because these are the three items in which there is serious competition between imports and indigenous products. On item 20, we recommend a protective duty of 60 per cent. *ad valorem*, on item 20 (3), a protective duty of 80 per cent. *ad valorem*, and on item 20 (2), a protective duty of 40 per cent. *ad valorem*. The rates on the other four items in the above list should remain, as at present, on the basis of revenue duties.

Other kinds of assistance.

27. Though an adequate protective duty is required to safeguard this industry against the competition of imports, protection by itself is not calculated to place it on a strong and stable basis or to ensure its development along healthy lines. To achieve that object, it will be necessary for Government and the other parties concerned to assist the industry in the following ways besides those previously indicated.

(*a*) *Refund of import duty on machinery.*—Most of the machinery employed by the industry at present was improvised and fabricated in India during wartime. It is essential that the industry must be equipped with up-to-date machinery. We, therefore, recommend that the import duty on all machinery imported for the use of this industry with effect from the 16th February 1946 (that is, the date of reference of the case to the Tariff Board) should be refunded. We further recommend that all facilities should be given to the industry to import suitable machinery from the cheapest sources in foreign countries.

(*b*) *Supply of bottles.*—In view of the defects of Indian bottles as stated in paragraph 11 above, it was argued that the fruit preservers in India should be permitted to import foreign bottles until the Indian manufacturers could produce bottles of a satisfactory quality. In order to ascertain the views of the bottle manufacturers themselves on the subject of this demand, the Board invited three of the principal glass manufacturers to send their representatives to meet the Board. Only the Technical Director of Bombay Glass Works, Mr. Edmond Lindenberger, responded to the invitation and met the Board for an informal discussion on the 2nd November 1946. Sardar Bahadur Lal Singh and Mr. Kashalkar, one of the Vice-Presidents of the Fruit Preservers' Association, were also present by special invitation. It was gathered from Mr. Lindenberger that the defects of the Indian bottles in the past were due mainly to lack of automatic machinery, proper annealing equipment and some necessary chemicals, but that these defects would be eliminated in the near future. He further informed the Board that the Bombay Glass Works had already got the equipment which would be put into operation during November 1946 and that its sister concern, the Allahabad Glass Works, Naini, would get the new equipment installed in about six months' time. He also stated that, according to

his information, at least 20 such automatic machines for manufacturing high quality bottles would be installed in the country within a year or so. He assured the Board that the full requirement of India in respect of such bottles could be met by the proposed installation of these automatic machines. As regards the price, he informed the Board that his price ex-factory for November and December 1946 would be Rs. 36 per gross but that it could be reduced very considerably if the fruit preservers of India adopted a convention regarding the use of one or two standard types of bottles and if they placed large orders for bottles on the basis of a consolidated demand. We have good reasons to believe that this improvement in quality and reduction in pirce is a definite possibility. We suggest that representatives of the Fruit Preservers' Association and those of the leading glass manufacturers should meet in conference at an early date and discuss the matter in all its bearings. We recommend that the question of granting import licences for bottles more freely should be decided after considering the views that may be formulated and forwarded to Government by the Fruit Preservers' Association at the end of the conference suggested above.

(c) *Training of experts.*—It was brought out in the evidence that there is at present a great dearth of trained men to serve as experts in the preserved fruits industry. Most of the factories are now being supervised by persons who have picked up some theoretical knowledge from books and some experience in the factories concerned but who are without any systematic training in the technique of fruit preservation. The spokesmen of the industry complained of the difficulty of getting such men, even though they were prepared to offer handsome salaries for competent persons. We recommend that facilities for training experts in the technology of fruit preservation should be enlarged not only by admitting a reasonably large number of students in the Institute of Fruit Technology, but also by the offer of suitable financial assistance to those Universities and Agricultural Colleges which are prepared to offer such training facilities on approved lines. We think it desirable that an early inquiry should be made for ascertaining whether and how far such facilities can be provided by the Universities and Agricultural Colleges. We also understand that certain canning factories are desirous of sending their own men abroad for getting the necessary training. We recommend that Government should give all assistance to such persons to secure proper training facilities in foreign countries.

(d) *Employment of foreign experts for short periods.*—It is almost certain that the proposed extension of training facilities will take a few years to turn out an adequate number of experts for the needs of the industry. We therefore think it desirable that, in the meantime, Government should take steps to employ some six foreign experts, two on the engineering side and four on the chemical side, whose advise and guidance should be made available free of cost to all the canning factories. We think that such experts need not be appointed for a longer period than, say, three years.

(e) *Cold storage and refrigerated transport facilities.*—Due to the seasonal production of fruits and their perishable nature, canning operations cannot be continued for more than six to eight months in the year even under the most favourable circumstances. Some extension of the canning season will be possible if cold storage facilities on a reasonable scale are provided by Government at suitable centres. Such facilities should be supplemented by the provision of refrigerated transport facilities. The matter, however, is not a simple one, and it has its technical and economic aspects. We recommend that it should be examined by Government at an early date.

(*f*) *The Fruit Products Control Order.*—This Order should be strictly enforced in all canning factories, particularly as the products are meant for human consumption, special attention being paid to keeping the premises healthy and clean and avoiding risks of contamination and poisoning.

(*g*) *Export facilities.*—We were informed by the Fruit Development Adviser to the Government of India that Government have permitted the export of 10 per cent. of the total output of the fruit products in order to enable the industry to renew its contact with the prewar export markets. We recommend that this should be continued.

(*h*) *Railway freight rates.*—It was complained to us by the fruit preservers that the rates of railway freight on fruits, fruit products and flattened cans is excessive as compared with the rates on similar articles in foreign countries. We had no data to examine the complaint. We recommend that the Railway Board should favourably consider the matter if and when an application is made on behalf of the preserved fruits industry for a reduction of the freights on these articles.

(*i*) *Compensation for loss in transit by rail.*—Representatives of the fruit preservation industry in the course of their oral evidence complained to us that though they send their fruit products to the consignees at railway risk after paying for the necessary insurance, the railway authorities have often shown complete indifference in considering and meeting their claims on account of loss due to breakage in the course of transit by rail. We had no opportunity to investigate whether or not this complaint is justified. We, however, recommend that the subject-matter of the complaint should be investigated by the Railway Board at an early date, and that if the complaint is found to justified, steps should be taken to ensure that in future all claims for compensation for losses in transit in such cases are promptly dealt with.

(*j*) *Improvement of horticulture.*—The future progress of the preserved fruits industry must depend to a large extent on the availability of adequate fruits of the right quality at reasonable prices. We recommend that the Central, Provincial and State Governments should initiate at an early date a co-ordinated policy of horticultural development, including both production and marketing.

Jammu and Kashmir State.

28. The State of Jammu and Kashmir is in a specially advantageous position regarding fruit growing and fruit canning. The State Government should give every possible encouragement to the development of the fruit preservation industry. Among other forms of assistance, we draw the attention of the State Government specifically to the following :—

(*a*) The exemption from import duty on machinery and on raw materials like cans and sugar, which is now given for a limited period, should be extended.

(*b*) The road toll charged on the preserved fruits should be abolished.

(*c*) The present exemption of preserved fruits from any export duty should be continued.

(*d*) The import duty of 15 per cent. on glass jars should be refunded when preserved fruits bottled therein are exported.

(*e*) To enable the canners to purchase fresh fruits at reasonable prices, a number of primary markets for fresh fruits should be established in suitable places within the State.

(*f*) A fruit research sub-station should be established at Srinagar under the Central Fruit Research Scheme of the Government of India.

(*g*) The scheme which the Government of India have in view for establishing subsidised cold storage plants in various parts of the country should be extended to the State as well.

Burden of protection.

29. Though the protective duties we have recommended may appear to be rather high, their probable incidence cannot be considered to be heavy, if we keep in view the general rise in the price level and cost of living. The probable retail prices of these various products under the proposed scheme of protection may be worked out by following the usual trade practice in this line of adding 50 per cent. to the landed cost of imports. On this basis, the retail price of pears per A2½ can would be Rs. 1-11-3, of peaches per A2½ can Rs. 1-10-5, of jams per 1½ lb. can Rs. 1-8-10, of marmalade per 1½ lb. can Rs. 1-10-9 and of squashes per 26 oz. bottle Rs. 2-4-0. The pre-war retail price of pears for the same unit varied from 11 annas to 14 annas and the extent of rise in price in this case would therefore range from 95 per cent. to 148 per cent. The retail price of peaches for the same unit in the pre-war period varied from 11 annas to 14 annas, and the extent of rise in price in this case would vary from 89 per cent. to 140 per cent. The retail price of jam in the pre-war period for the same unit was 8 annas and the extent of rise in price in this case would be approximately 200 per cent. In the case of squashes, the pre-war retail price for the same unit was Rs. 1-9-0 and the extent of rise in price of the article in question would be 44 per cent. When this probable rise in the price of the articles in question under our scheme of protection is compared with the rise in the wholesale price index number which has gone up by 200 per cent. the incidence of the proposed duties on the prices of the articles in question cannot be considered to be high. Moreover, on account of the existence of a large number of factories in the country, there is bound to be keen internal competition, which will check any tendency for prices to rise. Lastly, preserved fruits are generally eaten by the middle and upper classes of people, who are comparatively in a better position to bear the burden involved in the higher duties during the period of protection and consolidation of the industry.

Eligibility for protection.

30. Considering that it was greatly expanded only during wartime and had to suffer from various handicaps such as lack of imported machinery, inadequate supply and excessive price of sugar, costliness and inferior quality of cans, and dearth of suitable experts, we think that the industry, on the whole, has been established and conducted on sound business lines. We also consider that it has got sufficient comparative advantages by way of raw materials such as fruits, market and labour supply so as to become independent of protection within a reasonable period of time. Furthermore, the establishment and expansion of the industry will give a great stimulus to the development of the horticultural industry with its great value as a subsidiary of agriculture, the principal industry of the country. We, therefore, consider that the protection of this industry is in the larger interest of the nation.

Summary of recommendations.

31. Our recommendations are summarised as under :—

(i) Fruits and Fruit Products should be re-classified in the Import Tariff Schedule, in the Accounts of Sea-borne and Frontier Trade and also in the statistics of the Food Products Control Order as indicated in paragraph 25.

(ii) The standard rate of duty on canned and bottled fruits—suggested item 20—should be 60 per cent. *ad valorem*; the rate on fruit juices, squashes, cordials and syrups—suggested item 20 (2)—should be 40 per cent. *ad valorem*; the rate on jams, jellies, marmalades and candied and crystallised fruits—suggested item 20 (3)—should be 80 per cent. *ad valorem*; the duties should be made protective and they should remain in force for the period ending 30th March 1950. Should the landed cost of the imports without duty fall by 5 per cent. or more below those we have taken for the purpose of comparison, it should be open to the industry to appeal to Government to invoke section 4 (*1*) of the Indian Tariff Act of 1934 and to raise the duties to the necessary level. The preferential rates in favour of British Colonies and Burma should be abolished. Paragraphs 24 and 26.

(iii) The import duty on all machinery required for the use of the preserved fruits industry should be refunded with effect from the 16th February 1946. All facilities should be given to the industry to import suitable machinery from foreign countries. Paragraph 27 (*a*).

(iv) An adequate quota of sugar should be given to the industry; if necessary, steps should be taken to import sugar for this purpose. Paragraph 12.

(v) The excise duty on sugar used for the protected categories of preserved fruits should be refunded. Paragraph 21 (vii).

(vi) 500 to 1,000 tons of American tinplate should be imported free of duty and made available to recognised manufacturers of sanitary cans required for the preserved fruits industry. Paragraph 21 (viii).

(vii) Representatives of the Fruit Preservers' Association and those of the leading glass manufacturers should meet in conference at an early date and discuss the question of supply of high quality bottles for the preserved fruit industry. The question of granting import licences for bottles more freely should be decided by Government after considering the views that may be formulated at the conference. Paragraph 27 (*b*).

(viii) The Fruit Products Control Order should be amended so as to raise the cess payable by the fruit products factories from 4 annas to Re. 1 per Rs. 100 worth of product. Of the amount so collected, one-fourth should be spent for the administration of the Control and the balance should be set aside in a special Research and Development Fund, to which an equal contribution should be made by the Government of India. This special Fund should be administered by an appropriate representative committee. Paragraph 21 (iv).

(ix) Facilities for training experts in the technology of fruit preservation should be enlarged. Paragraph 27 (*c*).

(x) Government should take steps to employ six foreign experts for a period of about three years for giving advice and guidance free of cost to all the canning factories. Paragraph 27 (*d*).

(xi) The question of providing cold storage and refrigerated transport facilities should be examined by Government at an early date. Paragraph 27 (*e*).

(xii) The Fruit Products Control Order should be strictly enforced in all the canning factories. Paragraph 27 (*f*).

(xiii) The present provision permitting the export of not more than 10 per cent. of food products should be continued. Paragraph 27 (*g*).

(xiv) If and when an application is made by the preserved fruits industry to the Railway Board for a reduction of the freight rates on fruits, fruit products and flattened cans, the application should be favourably considered by the Railway Board. Paragraph 27 (*h*).

(xv) The Railway Board should investigate at an early date whether or not there is any justification for the complaint made to us by the fruit preservers that claims for compensation for loss in transit of fruit products sent to the consignees at railway risk have been ignored by the railway authorities. If the complaint is found to be justified, steps should be taken to ensure that in future all claims for compensation in such cases are promptly dealt with. Paragraph 27 (*i*).

(xvi) The Central, Provincial and State Governments should initiate at an early date a co-ordinated policy of horticultural development, including both production and marketing. Paragraph 27 (*j*).

(xvii) The attention of the Government of Jammu and Kashmir is drawn to the recommendations that we have made in paragraph 28 for assistance to the industry in the State.

Acknowledgments.

32. The Board wishes to offer its thanks to the Government of Jammu and Kashmir for providing accommodation and other facilities to the Board for conducting the inquiry in the State; to Mr. Aftab Rai, Regional Commissioner for Disposals, Lahore, for providing accommodation to the Board in his office and also for giving all other facilities during the inquiry at Lahore; to Sardar Bahadur Lal Singh, Fruit Development Adviser to the Government of India and a great champion of the industry, for giving valuable information and expert advice to the Board during the whole inquiry; to Mr. O. N. Anand, the cost Accounts Officer attached to the Board, for investigating the costs of three factories under rather difficult circumstances; to Dr. Girdhari Lal, Bio-Chemist, Institute of Fruit Technology, Lyallpur, for making helpful suggestions on important technical matters; to Dr. Kelkar, the Board's Technical Adviser, for assistance in preparing the case; and to Dr. Rama Varma, the Assistant Secretary to the Board, for ably supervising the preparation of the case.

The Board had addressed the Punjab Government in a letter dated the 14th June 1946, asking for office accommodation in Lahore from the 9th to the 16th October. The Board was informed by the Punjab Government in a letter dated the 19th September 1946, that is, four months after the request had been sent, that no accommodation would be available for the Board in Lahore during the inquiry.

While we were in Lahore, we learnt that the Legislative Assembly was not sitting at the time and that accommodation for the Board could have been provided in the Assembly Chamber if the Punjab Government had been a little more sympathetic. We had decided to conduct the inquiry at Lahore on the ground that the Punjab was the most important Province both for fruit farming and for fruit preservation and in the belief that our inquiry at the headquarters of the Provincial Government would stimulate popular interest in the development of the industry in question. We regret to say that we did not receive from the Punjab Government the necessary facilities for the inquiry to which we feel we were entitled.

SHANMUKHAM CHETTY—President.

C. C. DESAI—Member-Secretary.

NAZIR AHMAD—Member.

H. L. DEY—Member.

S. C. AGGARWAL—Deputy Secretary.

Dated 28th November 1946.

APPENDIX I

DEPARTMENT OF COMMERCE

RESOLUTION

TARIFFS

New Delhi, the 3rd November 1945

No. 218-T (55)/45.—In the statement on industrial policy issued by the Government of India on the 23rd April 1945, it was announced that, pending the formulation of a tariff policy appropriate to the post-war needs and conditions of the country and the establishment of permanent machinery for the purpose, Government would set up machinery for investigating claims from industries, which have been started or developed in war-time and which are established on sound lines, to assistance or protection during the transition period. A press communique issued on the same date invited industries to address their claims to the Secretary to the Government of India in the Department of Commerce.

2. Several industries have accordingly applied for assistance or protection, and on a preliminary examination of their claims, the Government of India have come to the conclusion that applications submitted by the following industries call for a detailed examination :—

(i) non-ferrous metals, including antimony ;

(ii) grinding wheels ;

(iii) caustic soda and bleaching powder ;

(iv) sodium thiosulphate, sodium sulphite anhydrous, sodium bisulphite ;

(v) phosphates and phosphoric acid ;

(vi) butter colour, aerated water powder colour ;

(vii) rubber manufactures ;

(viii) fire hose ;

(ix) wood screws ;

(x) steel hoops for baling.

Other applications are under the consideration of Government, and further action in their case will be taken in due course.

3. In addition to the industries which have applied for assistance or protection, there are certain industries the starting of which was considered essential by the Government of India under conditions created by the war. Early in 1940, Government announced that specified industries promoted with their direct encouragement during war-time might feel assured that, if they were conducted on sound business lines, they would, by such measures as Government might devise, be protected against unfair competition from outside India. In accordance with this decision,

the following industries have been given an assurance of protection against unfair competition after the war :—

(i) bichromates ;

(ii) steel pipes and tubes up to a nominal bore of 4 inches ;

(iii) aluminium ;

(iv) calcium chloride ;

(v) calcium carbide ;

(vi) starch.

Of these industries, only those engaged in the manufacture of bichromates, calcium chloride and starch have so far applied for assistance or protection during the transition period. The Government of India consider that the applications submitted by these three industries also call for immediate investigation.

4. For the purpose of these and any subsequent investigations, the Government of India have decided to set up a Tariff Board for a period not exceeding two years, in the first instance. The Board will consist of :—

PRESIDENT :

Sir R. K. Shanmukham Chetty, K.C.I.E.

MEMBERS :

Mr. C. C. Desai, C.I.E., I.C.S.

Professor H. L. Dey, D.Sc. (London).

The Board will include one more Member whose name will be announced shortly. Mr. Desai will act as Secretary to the Board in addition to his duties as Member.

5. The Tariff Board is requested to undertake, in such order as it thinks fit, the investigation of claims put forward by the industries specified in paragraphs 2 and 3 above. In the case of each industry the Board will, after such examination as it considers necessary, report whether the industry satisfies the following conditions :—

(1) that it is established and conducted on sound business lines ; and

(2) (*a*) that, having regard to the natural or economic advantages enjoyed by the industry and its actual or probable costs, it is likely within a reasonable time to develop sufficiently to be able to carry on successfully without protection or State assistance ; or

(*b*) that it is an industry to which it is desirable in the national interest to grant protection or assistance and that the probable cost of such protection or assistance to the community is not excessive. Where a claim to protection or assistance is found to be established, *i.e.*, if condition (1) and condition (2) (*a*) or (*b*) are satisfied, the Board will recommend—

(i) whether, at what rate and in respect of what articles, or class or description of articles, a protective duty should be imposed ;

(ii) what additional or alternative measures should be taken to protect or assist the industry; and

(iii) for what period, not exceeding three years, the tariff or other measures recommended should remain in force.

In making its recommendations the Board will give due weight to the interests of the consumer in the light of the prevailing conditions and also consider how the recommendations affect industries using the articles in respect of which protection is to be granted. Since relief, to be effective, should be afforded without delay, the Board is requested to complete its enquiries with all possible expedition and to submit a report as soon as the investigation of the claim of each industry is concluded.

6. The headquarters of the Board will be at Bombay, but it will visit such other places as it thinks necessary for purposes of its enquiries. Firms and persons interested in any of these industries, or in industries dependent on the use of the products of these industries, who desire that their views should be considered, should address their representations to the Secretary to the Board.

7. Any claims hereafter received from other industries which in the opinion of the Government of India are suitable for examination by the Board will be referred to the Board in due course for examination.

8. The Government of India trust that Provincial Governments and Administrations will afford the Board all the assistance which it may require and will comply with any request for information which may be addressed to them by it.

N. R. PILLAI,
Secretary.

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APPENDIX II

GOVERNMENT OF INDIA

DEPARTMENT OF COMMERCE

New Delhi, the 16th February 1946

RESOLUTION

TARIFFS

No. 218-T (55)/45.—In pursuance of paragraphs 2, 3 and 7 of their Resolution in the Department of Commerce, No. 218-T (55)/45, dated the 3rd November 1945, the Government of India have decided to refer to the Tariff Board for investigation applications for assistance or protection received from the following industries, namely :—

(i) Glucose ;

(ii) All Abrasives other than Grinding Wheels ;

(iii) Hurricane Lanterns ;

(iv) Cocoa powder and Chocolate ;

(v) Aluminium ;

(vi) Preserved Fruits.

2. In making its enquiries, the Board will be guided by the principles laid down in paragraph 5 of the Resolution referred to above.

3. Firms or persons interested in any of these industries or in industries dependent on the use of these articles, who desire that their views should be considered by the Tariff Board, should address their representations to the Secretary to the Board, Caltex House, Ballard Estate, Bombay 1.

4. Similar announcements will be made from time to time regarding claims from other industries found suitable for examination by the Board.

N. R. PILLAI,

Secretary to the Government of India.

APPENDIX III

Preserved Fruits

List of Manufacturers to whom Questionnaires were issued

S. No.	
	Bombay—
1	1. Union Trading Co., Ltd., P. O. No. 116, Graham Road, Ballard Estate, Bombay.
2	2. Johnson Phillips & Co. (Eastern), Ltd., Hornby Road, Fort, Bombay.
3	3. S. Keshavlal & Co. Albert Buildings, Fort, Bombay.
4	4. Mody & Co., Engineer Buildings, 365 Princess Street, Bombay.
5	5. Madhu Canning Co., Ltd., Bombay 14.
6	6. A. Kalvert & Co., 123, Upper Duncan Road, Bombay.
7	7. Hind Laboratories Ltd., 217/19, Shivaji Park, North End, Cadell Road Junction, Bombay 28.
8	8. Pure Products Ltd., 1, Home Street, Fort, Bombay.
9	9. Hillman Manufacturing Co., Love Lane, 1st Cross Street, Byculla, Bombay.
10	10. Rural Products Co., Ltd., P. O. Box 33, 952, Sadashiv, Poona 2.
11	11. D. & P. Products, 72, Pali Danda Road, Bandra, P. O. Bag 6652, Bombay.
12	12. Wimzolla Fruit Preserving Co., 85, Love Lane, Bombay.
13	13. Corn Products (India) Ltd., P. O. Box No. 994, Bombay.
14	14. Personal Products (India) Ltd., Manak Villa, Nehru Park, Ville Parle (East), Bombay.
15	15. Faraj Muary & Co., Arthur Bunder Road, Colaba, Bombay.
16	16. Fruit Farms Products, 319, Hornby Road, Fort, Bombay.
17	17. Dr. D. Writer & Co., Dadar, Bombay 14.
18	18. Kashmir Canning Co., Ltd., C/o Messrs. Shadik & Co., Bell Buildings, Sir P. M. Road, Fort, Bombay.
19	19. Hasba Fruit Products, No. 24, Nihal Peth, Poona 2.

S. No.

Madras—

20 1. The MacDowell & Co., Ltd., 2/6, Jahangir Street, Second Line Beach, Madras.

21 2. India Fruits Ltd., Kadiam (East Godawari District).

22 3. Sri Chamundeswari Industries (Madras), Kodur P. O., District Cuddapah.

23 4. Hindustan Canning Co.; Kodial Bail, P. O. Mangalore (S. India).

C. P.—

24 1. Vanguard Fruit Industries, Diwanji Mahal, Nagpur.

25 2. Manak Chand Kissen Dass, Utran Via Pachora, G. I. P. Rly., India.

26 3. Sundala Fruit Farms, Jubbulpore (C. P.).

27 4. Student Fruit Products, Dhantoli, Park Avenue, Nagpur.

28 5. C. O. Fruit Preserving Co., Itwari, Nagpur.

29 6. Mr. U. K. Dasgupta, Krishna Kunj, Wright Town, Jubbulpore.

Bengal—

30 1. Bengal Gardeners, 78, Clive Street, Calcutta.

31 2. Bengal Canning & Condiments Works Co., 15, Clive Street, Calcutta.

32 3. B. N. Elias & Co., Ltd., Norton Buildings, 1 & 2 Old Court House Corner, Calcutta.

33 4. Asiatic Food Products, Gopalpur, District Rajshahi (Bengal).

34 5. Daw Sen & Co., 29, South Road, Entally, Calcutta.

35 6. Tims Products Ltd., P-6, Mission Row Extension, Calcutta.

36 7. Rosaline Products, 8, Marquis Street, P. O. Park Street, Calcutta.

37 8. Sreekissen Dutt & Co., 128, Middle Road, Entally, Calcutta.

38 9. I. Musry & Co., 11/A, Dacres Lane, Calcutta.

39 10. The Metal Box Co. of India Ltd., P. O. Box No. 2123, Hide Road, Kidderpore, Calcutta.

40 11. Imperial Fruit Preserving Co., 25-A, Muraripukar Road, Calcutta.

41 12. The Farmers Industries, 3-Huzurimul Lane, Entally, Calcutta.

42 13. The Farm & Fruit Products, 15-Pollock Street, Calcutta.

43 14. Ideal Fruit Preserving Factory, 67, Badridas Temple Street, Calcutta.

S. No.	*Bengal*—contd.
44	15. Poulain & Co., 5, Commercial Buildings, Calcutta.
45	16. Eastern Condiments Co., 141, Dharamtala Street, Calcutta.
46	17. Rano's Products, 25, Middle Road, Calcutta.
47	18. Sinco's Fruit Products, 89, Dharamtala Street, Calcutta.
48	19. French Cordial & Juice Preserving Factory, P-39, Mission Row Extension, Calcutta.
49	20. India Collective Farms Ltd., 15, Clive Street, Calcutta.
50	21. Mida & Co., 33, Canning Street, Calcutta.
51	22. Mitter Sircar & Co., 68/Serpentine Lane, Calcutta.
52	23. Himalayan Food Products, Kalimpong.
	U. P.—
53	1. G. G. Fruit Preserving Factory, Agra.
54	2. Alma Industries, Bareilly (U. P.).
55	3. B. Dugson Fruit Preserving Co., Bareilly.
56	4. Kanhiya Lal & Bros., Rawatpara, Agra.
57	5. Bharat Canning Co., Hewatpara, Agra (U. P.).
	Delhi—
58	1. Delhi Food Products Ltd., 4, Keeling Road, New Delhi.
59	2. Northland Industries, Chuna Mandi, Pahar Ganj, Aziz Buildings, New Delhi.
60	3. Nirula & Co., Connaught Place, New Delhi.
61	4. Harnarain Gopinath, Khari Baoli, Delhi.
62	5. Hindustan Canning Industries, behind Imperial Bank, Chandni Chowk, Delhi.
63	6. Bi-Vit Food Laboratories, Mori Gate, New Delhi.
64	7. Himalayan Fruit Industries Ltd., Khari Baoli, Delhi.
65	8. Harnarain Gokalchand, Khari Baoli, Delhi.
66	9. The Civil and Military Stores, Tiss Hazari, Delhi.
67	10. Victoria Manufacturing Co., 17, Harphul Singh Building, Subzimandi, Delhi.
68	11. Castle Canning Co., Delhi.
69	12. Baluchistan Fruit Products, 56, Babar Road, New Delhi.

S. No.	*Punjab*—
70	1. Preservation Syndicate, Grant Trunk Road, Amritsar.
71	2. Garden Products (India), Ltd., Gojra, District Lyallpur.
72	3. Tenison Fruit Farms, Sargodha (Pb.).
73	4. The Glacier Products (India) Ltd., Pathankot.
74	5. Indian Mildura Fruit Farms Ltd., Renala Khurd, District, Montgomery.
75	6. Indian Pure Food Products, Gojra, District Lyallpur.
76	7. Pure Food Products Laboratories, F-282, Kakezian Street, Lahore.
77	8. S. A. Rehman & Sons, Grant Trunk Road, Lahore.
78	9. The Ravi Food Products, Montgomery.
79	10. Sunlight Food Industries Ltd., Opp. S. P. S. K. Hall, Lahore.
80	11. Kuldip Fruit Preserving Co., Ltd., Kuldip Nagar, Ambala Cantt.
81	12. The Floral Fruit Products, Grant Trunk Road, Ambalal Cantt.
82	13. The Star Fruit Preserving Co., 7, Nicholson Road, Lahore.
83	14. King Fruit Packing Co., Montgomery.
84	15. Sun Beam Food Products Co., G. T. Road, Amritsar.
85	16. The Punjab Fruit Products Co., Maya Niwas, Khalsa College Road, Gujranwala.
86	17. The Rainbow Food Products Co., Dhobi Ghat, Lyallpur.
87	18. Aziz Fruit Products, Montgomery.
88	19. The Master Juice Co., Mission Buildings, Civil Lines, Amritsar.
89	20. Pal's Fruit Products, Amritsar.
90	21. The Colony Products, Aminpur Bazar, Lyallpur.
91	22. Punjab Fruit Products, 15-Maclagon Road, Lahore.
92	23. Noon Farm Products Ltd., Bhalwal, District Shahpur.
93	24. Sham Singh Inder Singh, Lakar Mandi, Dhab Wastiram, Amritsar.
94	25. N. C. Food Industries, Nirmal Niwas, Krishna Kunj, Lahore.
95	26. Sarin Food Products, Okara District, Montgomery.
96	27. Standards Drugs Co., T. T. R., Amritsar.
97	28. Victory Pure Food Products, Gojra, District Lyallpur.
98	29. The Central Food Products Co., G. T. Road, Amritsar.

S. No.

N. W. F. P.—

99 1. The United Finance Ltd., Rawalpindi.

100 2. The Metro Fruit Products, Krishnapura, Rawalpindi.

101 3. The Friends' Trading Co., Bohar Bazar, Rawalpindi.

102 4. Halma Sesame & Co., N/313, Bhabhran Bazar, Rawalpindi.

103 5. Segan Fruit Products Co., Mohla Kartarpura, Rawalpindi.

104 6. India Fruit Co., N.-W. F. P. Sardar Road, Peshawar.

105 7. Government Canning Factory, Peshawar.

Baluchistan—

106 1. Veldon Chemical & Food Products, Daldeva Road, Quetta.

107 2. Hamid Fruit Farms, Gulistan (Baluchistan).

108 3. Dittu & Sons, Surajgunj Bazar, Quetta.

109 4. Davids Jam Manufacturing Factory, P. O. Box No. 44, Quetta.

Sirmur State—

110 1. Sirmur Land Produce Syndicate, Nahan.

Patiala—

111 1. Teg Products, Bahadurgarh Farms, Patiala.

Jammu and Kashmir State—

112 1. Jammu and Kashmir Industries Ltd., Jammu (Tawi).

113 2. Kashmir Canning Industries Ltd., College Road, Jammu (Tawi).

114 3. Ravenscroft Limited, Raj bagh, Srinagar (Kashmir).

Ajmer—

115 1. Bhikkilal Chottaylal Agarwal, Madar Gate, Ajmer.

Hyderabad Deccan—

116 1. The National Food Products Ltd., Nazamshahi Road, Hyderabad Deccan.

APPENDIX IV

List of Consumers to whom Questionnaires were issued

1. The Taj Mahal Hotel, Bombay.
2. Grant Hotel, Bombay.
3. Majestic Hotel, Bombay.
4. Purohit Hotel, Bombay.
5. Rodriques & Co., Karachi.
6. Tarachand Moolchand, Karachi.
7. Co-operative Stores, Karachi.
8. Monginis Limited, Bombay.
9. Aram Restaurant, Bombay.

APPENDIX V

List of Importers to whom Questionnaires were issued

1. Herbertson Ltd., Bombay.
2. K. M. Saboowala, Bombay.
3. Yazdani & Co., Ltd., Bombay.
4. Empire Stores, Bombay.
5. Great Eastern Stores, Calcutta.
6. Army & Navy Stores, Calcutta.
7. Mazda Ltd., Calcutta.
8. V. P. Stores, Calcutta.
9. O. N. Mukerji & Sons, Calcutta.
10. Spencer & Co., Ltd., Calcutta.
11. Daw Sen & Co., Calcutta.
12. A. Firpo & Co., Ltd., Calcutta.
13. B. N. R. Co., Kidderpore, Calcutta.
14. Bombay Provision Merchants' Association, Bombay

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APPENDIX VI

List of Factories visited by or on behalf of the Board

1. Sree Kissen Dutt & Co., Calcutta.	Visited by Dr. H. L. Dey, on the 8th August 1946.
2. Madhu Canning Factory, Bombay.	Visited by Dr. V. V. Kelkar, Technical Adviser, and Mr. O. N. Anand, Cost Accounts Officer, on the 3rd, 12th and 13th September 1946.
3. Indian Mildura Fruit Farm, Renala Khurd, Montgomery.	(i) Visited by Mr. C. C. Desai, Dr. Nazir Ahmad, Dr. H. L. Dey and Sardar Bahadur Lal Singh, on the 10th October 1946. (ii) Visited by Dr. V. V. Kelkar, Technical Adviser and Mr. O. N. Anand, Cost Accounts Officer, from the 17th September 1946 to the 22nd September 1946.
4. Ravenscroft Ltd., Srinagar ..	Visited by the President, Mr. C. C. Desai, Dr. Nazir Ahmad, Dr. H. L. Dey and Sardar Bahadur Lal Singh, on the 28th September 1946.
5. Shalimar Canning Works, Srinagar.	Visited by Mr. O. N. Anand, Cost Accounts Officer, from the 28th September to the 2nd October 1946.
6. Jammu & Kashmir Industries, Jammu.	Visited by Mr. C. C. Desai and Dr. H. L. Dey, on the 7th October 1946.

APPENDIX VII

List of Witnesses examined at Srinagar on the 3rd October 1946

Fruit Growers :—

1. Fruit Growers' Association, Srinagar, represented by Khan Ghulam Hussein Khan, President, and Pandit Shambu Nath, Secretary of the Association.

Fruit Canners :—

1. Shalimar Canning Works, Srinagar, represented by Mr. P. N. Kak.
2. Ravenscroft Ltd., Srinagar, represented by Mr. Chopra and Mr. Sahgal.
3. H. A. Rahim & Co., Srinagar, represented by Mr. Ghulam Qadir.
4. Happy Valley, Baramula, represented by Mr. Pran Nath.

The Development Minister, the Director of Agriculture, the Assistant Director of Industries, and the Superintendent of Industries, Jammu and Kashmir Government, who were specially invited, were kindly present to assist the Board in the inquiry.

APPENDIX VIII

List of witnesses examined at Lahore on 11th and 12th October 1946

Producers :—

Madhu Canning Co. Ltd., Bombay, represented by Mr. Kashalkar.

Ravenscroft Ltd., Srinagar, represented by Mr. A. C. Chopra.

Indian Mildura Fruit Farm, Renala-Khurd, represented by Mr. R. Mitchell and Mr. Harris.

G. G. Fruit Preserving Factory, Agra, represented by Mr. M. K. Tikkoo.

The Indian Fruit Co., Peshawar, represented by Mr. Kuli Khan.

S.A. Rehman & Co., Lahore, represented by Mr. Abdul Qadir and Abdul Shakoor.

Kuldip Fruit Preservation Factory Ltd., Kuldipnagar, represented by Mr. I. N. Sudan.

Glacier Products, Pathankot, represented by Mr. M. K. Mahajan.

Castle Canning Co., Delhi, represented by Mr. E. M. Abbassi.

King Chemical Works, Lahore, represented by Mr. Mohd. Jaffar Khan.

Messrs. Hiralal Pannalal, Lahore, represented by Mr. Madanlal.

Australian Dawakhana Ltd., Lahore, represented by Mr. M. A. Bux.

Jammu & Kashmir Industries Ltd., Jammu, represented by Mr. D. D. Chopra.

Indian Fruit Products Co., Lahore, represented by Mr. Shamlal and Mr. Chiranjit Lal.

Shafiq Fruit Products Factory, Jullunder City, represented by Mr. Hakim Mohd. Shafi Qureshi.

Messrs. Govindram Kanchand, Lahore, represented by Mr. Kharaiti Lall and Mr. Sain Lall.

Punjab Fruit Products Co., Gujranwala, represented by Mr. R. M. Varma.

The All-India Food Preservers' Association, Delhi, represented by Mr. Kashalkar and Mr. R. Mitchell, Vice-Presidents.

Indian Processed Food Manufacturers' Association, Calcutta, represented by Mr. K. U. Patel.

Importers and Consumers :—

Spencer & Co. Ltd., Calcutta, represented by Mr. Z. R. Irani.

Others (Technical Experts, suppliers of packing materials, etc.) :—

Dr. Girdharilal, Bio-chemist, Indian Institute of Fruit Technology, Lyallpur (Technical Expert).

Indian Sugar Mills Association, Calcutta, represented by Mr. Bafna.

Tinplate Co. of India, Ltd., Calcutta, represented by C. W. Watson.

Metal Box Co. of India, Ltd., Calcutta, represented by Mr. R. W. Westbrook and Mr. Mani.

Sheet Metal Holloware Co., Lahore, represented by Mr. S. Mukherji.

APPENDIX IX

Statement showing the quantity, value and average value per cwt. of Imports of Canned or Bottled Fruits into India from 1936-37 to 1945-46

——		1936-37	1937-38	1938-39	1939-40	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46†
I. Quantity of Imports from :—											
1. U.K.	Cwt. (000) ..	2·48	2·99	2·26	1·67	0·85	0·4	0·41	..	Information not available.	
2. Straits Settlements ..	,, ..	22·55	20·08	21·99	18·00	17·81	32·4	0·01	..	,,	,,
3. Federated Malay States ..	,, ..	..	0·19	0·40	1·61	0·32	0·5	..	..	,,	,,
4. Canada	,, ..	0·69	0·10	0·12	0·05	0·46	1·00	0·77	..	,,	,,
5. Australia	,, ..	3·13	3·82	3·79	4·67	6·98	18·09	4·26	0·21	,,	,,
6. Italy	,, ..	0·29	0·67	0·63	0·67	0·09	..	..	..	,,	,,
7. Japan	,, ..	0·61	0·24	0·42	0·16	0·10	0·02	..	..	,,	,,
8. U.S.A.	,, ..	13·32	18·02	13·87	12·28	3·40	0·03	0·21	0·26	,,	,,
9. Argentine Republic ..	,, ..	..	..	..	..	..	..	0·23	0·96	,,	,,
10. Other Countries ..	,, ..	1·59	0·52	0·36	1·02	0·78	0·57	0·85	0·01	,,	,,
Total imports ..	,,	35·87*	46·63	43·88	40·13	30·79	43·99	6·74	1·44	3·69	3·72

*Excluding imports into Burma.
†For nine months only, from April to December 1945.

Statement showing the quantity, value and average value per cwt. of Imports of Canned or Bottled Fruits into India from 1936-37 to 1945-46—contd.

		1936-37	1937-38	1938-39	1939-40	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46†
II. Value of Imports from :—											
1. U.K.	Rs. (Lakhs) ..	1·36	1·65	1·40	1·13	0·72	0·31	0·20	..	Information not available.	
2. Straits Settlements ..	,, ..	2·35	1·98	2·05	2·09	2·83	3·85	..	..	,,	,,
3. Federated Malay States ..	,, ..	..	0·02	0·03	0·16	0·05	0·10	..	..	,,	,,
4. Canada	,, ..	0·04	0·04	0·04	0·01	0·16	0·65	0·36	..	,,	,,
5. Australia	,, ..	0·92	1·12	1·12	1·27	2·41	6·60	1·44	0·12	,,	,,
6. Italy	,, ..	0·11	0·24	0·25	0·27	0·07	..	..	..	,,	,,
7. Japan	,, ..	0·10	0·05	0·07	0·06	0·03	0·01	..	..	,,	,,
8. U.S.A.	,, ..	4·73	6·74	4·92	5·05	1·54	0·01	0·13	0·10	,,	,,
9. Argentine Republic ..	,, ..	..	..	..	..	..	..	0·17	1·00	,,	,,
10. Other countries ..	,, ..	0·55	0·28	0·21	0·36	0·23	0·27	0·63	0·01	,,	,,
Total imports ..	,, ...	8·34*	12·12	10·09	10·40	8·04	11·80	2·93	1·23	1·74	1·68

*Excluding imports into Burma.
†For nine months only, from April to December 1945.

Statement showing the quantity, value and average value per cwt. of Imports of Canned or Bottled Fruits into India from 1936-37 to 1945-46—contd.

——	1936-37	1937-38	1938-39	1939-40	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46*
III. Average value per cwt. of Imports from :—	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.
1. U.K.	55 0	55 1	61 15	67 14	82 3	69 1	50 5	57 12	Information not available.	
2. Straits Settlements ..	10 7	9 14	9 5	11 9	15 15	17 3	25 13	..	,,	,,
3. Federated Malay States ..	..	9 0	8 6	10 2	16 9	18 10	..	..	,,	,,
4. Canada	42 8	33 11	33 4	29 11	34 5	48 7	47 6	..	,,	,,
5. Australia	29 7	29 4	29 8	27 4	34 9	35 8	33 12	55 13	,,	,,
6. Italy	38 0	36 9	40 1	40 12	77 3	..	..	..	,,	,,
7. Japan	16 1	22 6	17 8	36 15	29 2	37 14	..	..	,,	,,
8. U.S.A.	35 8	37 6	35 8	41 2	45 3	50 14	60 1	39 9	,,	,,
Total imports ..	23 4	26 0	23 0	25 15	26 2	26 13	43 9	85 6	47 5	45 3

*For nine months only, from April to December 1945.

APPENDIX IX—*contd.*

Statement showing the quantity and value of Jams and Jellies Imported into India from 1936-37 to 1945-46

——		1936-37	1937-38	1938-39	1939-40	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46†
Quantity of Imports from :—											
(1) U. K.	Cwt. (000) ..	14·81	12·10	11·85	10·75	7·09	1·82	0·20	0·12	Information not available.	
(2) Union of South Africa ..	,, ..	..	..	..	0·02	0·09	1·83	3·56	6·62	,,	,,
(3) Commonwealth of Australia.	,, ..	4·91	5·57	5·05	9·61	6·56	16·23	1·80	4·17	,,	,,
(4) Argentine Republic ..	,, ..	..	..	..	....	..	..	0·05	0·70	,,	,,
(5) Other countries ..	,, ..	0·80	0·89	1·33	1·30						
Total imports ..	,, ..	18·51*	18·56	18·23	21·68	0·24	0·40	0·02	0·42	,,	,,
						13·98	20·28	5·63	12·03	17·41	4·40
Value of Imports from :—											
(1) U.K.	Rs. (Lakhs) .	5·39	4·48	4·60	4·15	3·49	1·09	0·16	0·05	Information not available.	
(2) Union of South Africa ..	,, ..	..	..	..	0·02	0·03	0·68	1·45	3·56	,,	,,
(3) Commonwealth of Australia.	,, ..	1·65	1·79	1·58	2·82	2·36	0·06	0·77	1·61	,,	,,
(4) Argentine Republic ..	,, ..	..	..	..	..	..	..	0·05	0·82	,,	,,
(5) Other countries ..	,, ..	0·28	0·38	0·49	0·64	0·12	0·25	0·01	0·24	,,	,,
Total imports ..	,, ..	6·56*	6·65	6·67	7·63	6·00	8·08	2·44	6·28	7·05	2·06

*Excluding imports into Burma.

†For nine months only from April to December 1945.

APPENDIX X

C.I.F. Prices of Imports

(a) *Kraft Canned Fruits (30 oz. tins) (Australian)*:—

		Apricots	Cling and Sliced Peaches	Pears
		25 C/s = 50 dz. @ 12/8	85 C/s = 170 dz. @ 12/5	102 C/s = 204 dz. @ 12/11
	£.	31 13 4	105 10 10	131 15 0
Freight	,,	4 18 0	16 13 4	19 19 9
Insurance	,,	0 8 1	1 7 0	1 13 9
A.C. ..	£.	36 19 5	123 11 2	153 8 6
Less exchange 19¼%	,,	7 4 2	24 1 10	29 18 4
Sterling	£.	29 15 3	99 9 4	123 10 2
At Ex. 1/5·7/8	Rs.	399 10 0	1,335 8 0	1,658 5 0
Duty 36%	,,	144 12 0	484 15 0	601 9 0
Wharfage etc.	,,	31 4 0	106 4 0	127 8 0
	Rs.	575 10 0	1,926 11 0	2,387 6 0

(b) *I.X.L. Marmalade 12 oz. tins (Australian)*—

*121 Cases = 484 Doz. At Sh. 6/2	£.	163 7 0
Freight	,,	18 11 2
Insurance	,,	1 19 1
A.C. ..	,,	183 17 3
Less Exchange	,,	35 17 1
Sterling	,,	148 0 2
At Exchange 1/5·7/8	Rs.	1,987 4 0
Duty 30%	,,	601 3 0
Wharfage and Clearing	,,	151 4 0
	Rs.	2,739 11 0

*Corresponding f.o.b. price of 24 oz. tins per dozen is 12 shillings, that is, an increase of 77·8%.

(c) *Jams (Australian)*—

			December 1945
F.o.b. price of 10,527 (24 oz. cans) at Sh. 10 per dozen.	..	..	£. 5,263 10 0
Freight	..	..	,, 762 5 10
Insurance	..	..	,, 104 2 6
	Total		£. 6,129 18 4
(Less exchange 19½% for conversion into Sterling).	..	..	,, 1,195 6 8
	Sterling .		£. 4,934 11 8
Exchange at Sh. 1/5·7/8	..	..	Rs. 66,254 9 0
Import duty at 30%	..	..	,, 19,876 6 0
Clearing Charges	..	..	,, 2,631 12 0
	Total	..	Rs. 88,762 11 0

The latest quotation of I.X.L. Jam is 10 Sh. 9 *d.* per doz. f.o.b. Australia, that is, an increase of 7·5% over the quotation of December 1945 given above.

(d) *Fruit Juices, Cordials etc.*—

F.O.R. price per dozen in Australian currency—October 1946 (*vide* telegram from Indian Trade Commissioner, Australia, to Fruit Development Adviser).

Fruit Juice and Cordials (glass jare) from 21 Sh. to 27 Sh. 6 *d.*

2526/1948

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GOVERNMENT OF INDIA

DEPARTMENT OF COMMERCE

REPORT OF THE INDIAN TARIFF BOARD

ON THE PROTECTION OF THE RUBBER MANUFACTURING INDUSTRY

(General and mechanical rubber goods)

JAIN BOOK AGENCY
GOVT. BOOK-SELLERS
CONNAUGHT PLACE
NEW DELHI

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BOMBAY 1947

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REPORT ON THE PROTECTION OF THE RUBBER MANUFACTURING INDUSTRY

(GENERAL AND MECHANICAL RUBBER GOODS)

Reference to the Board.

1. The application of the rubber manufacturing industry for protection or assistance was referred to the Board for investigation by Resolution No. 218-T(55)/45 of the Commerce Department, Government of India, dated the 3rd November 1945.

Terms of reference.

2. Under the terms of reference, which are stated in paragraph 5 of the abovementioned Resolution, the Board has to report whether the industry satisfies the following conditions:—

(1) that it is established and conducted on sound business lines; and

(2) (*a*) that, having regard to the natural or economic advantages enjoyed by the industry and its actual or probable costs, it is likely, within a reasonable time, to develop sufficiently to be able to carry on successfully without protection or State assistance; or

(*b*) that it is an industry to which it is desirable in the national interest to grant protection or assistance and that the probable cost of such protection or assistance to the community is not excessive. Where a claim to protection or assistance is found to be established, *i.e.*, if condition (1) and condition (2) (*a*) or (*b*) are satisfied, the Board has to recommend (*i*) whether, at what rate and in respect of what articles, or class or description of articles, a protective duty should be imposed; (*ii*) what additional or alternative measures should be taken to protect or assist the industry; and (*iii*) for what period, not exceeding three years, the tariff or other measures recommended should remain in force. In making its recommendations, the Board has to give due weight to the interests of the consumer in the light of the prevailing conditions and also to consider how the recommendations affect industries using the articles in respect of which protection is to be granted.

Application for protection.

3. The Association of Rubber Manufacturers in India applied for the protection of the tyre industry in their letter dated the 14th December 1943 addressed to the Secretary to the Government of India, Department of Industries and Civil Supplies. This was followed up by another letter dated the 28th September 1944 addressed to the Secretary to the Government of India, Department of Commerce. In the second letter, the Association asked for an enhancement of the "existing customs duty by the necessary percentage to compensate for the excise tax levied

on indigenously made tyres ". It was on the basis of this application that the case of rubber manufactures for protection or assistance was referred to the Board. When the Board took up the inquiry and issued the questionnaire, the main tyre manufacturers, *viz.*, the Dunlop Rubber Co., the Firestone Rubber Co., the Goodyear Tyre and Rubber Co. and The India Tyre and Rubber Co. in their joint letter dated the 11th March 1946 informed the Board that it was not their intention to apply for protection or assistance at present, but that they would like to reserve the right to approach the Board at a future date if there was any actual or contemplated change in the tariff rates or competitive circumstances. Subsequently, relying on the general assurance given by the Finance Member of the Government of India in his Budget speech for 1946-47 that steps will be taken for the removal of customs duty on raw materials the Dunlop Rubber Co. (India), on behalf of the Association, wrote to the Chairman of the Central Board of Revenue on the 10th May 1946, requesting that the duty on the raw materials for rubber manufactures should be removed as early as possible. On the 8th June 1946, again, they addressed a letter to the Secretary to the Government of India, Department of Commerce, asking for the removal of the excise duty on the locally made tyres introduced as a wartime measure in 1941 and assuring that the benefit of such removal of the duty would be at once passed on to the motoring public. These claims were also remitted to the Board for investigation. On an invitation from the Board to define their exact position regarding the question of protection, two of the representatives of the tyre manufacturers, *viz.*, Mr. Fergusson of Dunlops and Mr. Wenzel of Firestone held a discussion with the Board on the 27th November 1946, and made it clear that the tyre manufacturing industry did not require any protection or assistance at present. This was confirmed in their letter dated the 28th November 1946, in which it was pointed out that the removal of the excise duty on motor tyres and of the customs duty on raw materials had been asked for as a matter of routine approaches based, in the first instance, on the belief that the excise duty was a wartime measure, and in the second instance, on the points covered by the Finance Member's Budget Speech for 1946-47. In view of this withdrawal of the original application for protection submitted by the tyre manufacturers, who constitute by far the largest and most important section of the industry, the Board had to consider whether the inquiry should be proceeded with any further. But in the meantime, the Indian Rubber Industries Association, representing some 60 units, submitted a memorandum to the Board on the 31st January 1946 and asked for a protective duty of 100 per cent. *ad valorem* on all rubber goods till the end of 1949, 75 per cent. till the end of 1952, and 50 per cent. till the end of 1955. A large

number of rubber manufacturing firms also, in their replies to the questionnaire issued by the Board, separately put in their claims for the protection of a great variety of general and mechanical rubber goods. The Board, therefore, decided that the inquiry into the rubber manufacturing industry should be proceeded with so as to cover the general and mechanical rubber goods.

Scope of inquiry.

4. The rubber manufacturing industry comprises five main sections, *viz*, (*i*) motor tyres and aero tyres, (*ii*) cycle tyres, (*iii*) rubber-covered cables, (*iv*) footwear, and (*v*) general and mechanical rubber goods. As has been stated earlier, motor tyres, aero-tyres and cycle tyres do not ask for any protection or assistance. The rubber footwear industry also has not applied for protection. The case of rubber-covered cables has already been dealt with by the Board in its report on non-ferrous metals. By the process of elimination, therefore, this inquiry has been confined only to the case of general and mechanical rubber goods. This group, again, can be conveniently divided into the following categories:—

(*i*) *Hoses.*—Delivery hose, suction hose, pneumatic tool hose, oil resisting hose and acid resisting hose.

(*ii*) *Moulded goods.*—Hot water bottles, rubber soles and heels.

(*iii*) *Ebonite goods.*—Solid rods, tubes and sheets.

(*iv*) *Dipped goods.*—Surgeon's gloves, teats and valves.

(*v*) *Calendered goods.*—Hospital bed sheeting, insertion sheets, solid rubber sheets and sponge sheets.

(*vi*) *Spread sheetings.*—Double-faced hospital bed sheeting.

(*vii*) *Extruded articles.*—Pedal rubbers, brake blocks.

(*viii*) *Built-up goods.*—Roller coverings and football bladder.

(*ix*) *Threads.*—Rubber and latex types, braided.

(*x*) *Floorings.*—Mat pressed, and tiles.

(*xi*) *Surgical goods.*—Catheters.

Method of inquiry.

5. On the 28th November 1945, the Board issued a press communiqué inviting firms, associations or persons including producers, importers and consumers directly interested in the industry or dependent upon it for their raw materials or semi-manufactured goods, who desired that their views should be considered by the Board, to submit their representations. Later on, a detailed questionnaire was also issued to the various interests concerned. A list of the firms, associations or persons to whom the questionnaire was issued and of those

who replied to it will be found in Appendix I. Mr. Desai and Dr. Dey visited the Cosmos Rubber Factory, Bombay, on the 23rd December 1946. In January 1947, Dr. Dey also visited three factories in Calcutta, *viz.*, National Rubber Manufacturers (till lately A. K. Sarkar), Dunlops and Bengal Waterproof. Mr. O. N. Anand, Cost Accounts Officer attached to the Board, visited the factories of (1) Travancore Rubber Works, Trivandrum, (2) National Rubber Manufacturers, Calcutta, and (3) Bengal Waterproof, Calcutta, in December 1946 and January 1947. Oral evidence of the representatives of producers, consumers and importers was taken at the public inquiry held in Bombay on the 11th March 1947. A list of persons who were present at the public inquiry will be found in Appendix II.

History of the industry..

6. The manufacture of rubber goods commenced in India about 1920 with the opening of a factory for the proofing of fabrics. It was followed in 1923 by a factory for the production of rubber-covered cables. The real beginning of the industry, however, can be said to have taken place during the 1930's when the International Rubber Restriction Scheme came into force, restricting rubber exports from the main producing countries and thereby gradually bringing about a rapid improvement in the world price of raw rubber. The internal price of rubber in India, however, continued to be low, which provided a considerable advantage to the local rubber manufacturers. Labour in India was also comparatively cheap. Moreover, it was during this period that the large overseas manufacturers of rubber goods began to decentralise their production, some of them establishing their subsidiary factories in India. The Bata Shoe Co. began operations in the country in 1933; the Indian Rubber Manufacturers, Ltd., set up a factory for the production of railway and mechanical rubber goods in 1934; a State-sponsored factory was started in Travancore in 1935; Dunlops started a tyre factory in Bengal in 1935-36; and the Firestone Tyre and Rubber Co. started another tyre factory in Bombay in 1939-40. In addition, a large number of small rubber factories came into being in this period, several with Japanese equipment and technicians, for the production of rubber footwear. There are also a small number of factories for the production of general rubber goods, such as hose, sheeting, cab tyring, moulded goods and a few others for the manufacture of cycle tyres and tubes on a small scale. Many more small factories were also started on a cottage industry basis. The war led to a great expansion of some of the more important plants, *e.g.*, the tyre factories, the railway and mechanical goods plant, the Bata factories and the cable factories, and also served to put many of the smaller factories on their feet and enabled some of them to improve their installations and extend the range of their products. Some of these smaller firms have produced very large quantities of rubber goods with more or less improvised plants and although the quality of their products has not been up to the standard of the imports, yet it has been acceptable for war requirements and their production has been of great value to the war effort. The industry now consists of some hundred units scattered throughout India including the Indian States, of which some 15 are reported to be first-grade plants.

Estimated demand and productive capacity in the country.

7. The Director-General of Industries and Supplies, New Delhi, has estimated the demand, maximum production so far achieved and productive capacity in the country as follows :—

(1) Item of goods.	(2) Estimated demand.	(3) Maximum production achieved.	(4) Total capacity.
Wrapped hoses	5,000,000 ft.	3,500,000 ft. (1946)	7,000,000 ft.
Dipped goods	300 tons.	100 tons. (1945-46)	400 tons.
Moulded goods	800,000 pieces.	380,000 pieces (1946)	600,000/ 1,000,000 pieces.
Soles and heels	150,000 gross.	16,000 gross. (1946)	2/300,000 gross.
Calendered goods	650 tons.	500 tons. (1945)	1,000/1,200 tons.
Extruded articles	4,000 tons.	300 to 400 tons. (1945-46).	3,000/4,000 tons.
Roller coverings	2,400 Nos.	1,400 Nos. (1946)	2,000/2,400 Nos.
Ebonite rods and tube sheets (second grade).	120 tons.	130 tons. (1944)	150 tons.
Surgical goods	80 tons.	120 tons. (1945).	120 tons.
Proofed fabrics	3,780,000 yds.	1,040,000 yds. (1946)	4,200,000 yds.
Football bladders	1,800,000 pieces.	1,900,000 pieces. (1946)	2,200,000 pieces.

It will be seen from the figures given above that in respect of practically all items of general and mechanical rubber goods, there is more than sufficient capacity in existence to satisfy the requirements of the country at the present time. If in some cases the maximum production achieved so far is much below the capacity of the industry, this is said to be mainly due to the non-availability of essential raw materials, such as, fabrics, steel wires, fittings and chemicals.

Comparative advantages and handicaps of the industry.

8. Raw rubber and most other raw materials and stores required for the industry are available in the country. The only items which have to be imported at present are accelerators, anti-oxidants, carbon blacks, sulphur, pigments, dyestuffs, softeners, mineral rubber and stearic acid. The industry

is also in a favourable position because of the availability of cheap labour and the existence of an extensive and rapidly growing home market. But a majority of the factories require to be equipped with up-to-date machinery. The industry is also weak on the technical side. We think that the rubber manufacturing industry should be regarded as one of the basic industries which has to be properly equipped and placed on a strong and stable basis. We, therefore, recommend that all reasonable facilities should be given to the rubber manufacturers to get the requisite machinery from any part of the world including hard currency countries like U. S. A. Further, in order to improve the technical efficiency of the industry, we recommend (*a*) that a rubber technological institute should be established by Government at an early date and (*b*) that in the meantime the services of three or four foreign experts should be secured by Government for providing technical advice to the manufacturers. In this connection, we are informed that such experts might possibly be available from Germany on reasonable terms. Representatives of the manufacturers of water-proof fabrics have complained that they could not keep up the standard of their products due to the lack of proper quality of fabrics. Incidentally, some representatives of the cycle tyre manufacturers have also complained that they cannot go ahead with their expansion programme due to the non-availability of tyre cords of requisite specifications. We suggest that the rubber manufacturers should prepare a consolidated list of their requirements in respect of cords, fabrics and other stores and materials and approach the Government of India Department concerned for the necessary allocation, and while recognising that there is an overall shortage of certain requisite materials like textile fabrics and tyre cords in the country, we recommend that Government should give high priority to the requirements of the rubber manufacturing industry in respect of fabrics and cords. Further, now that the Government demand on account of defence requirements has considerably fallen off, the industry must depend for the sale of its products largely upon the normal requirements of civil life and should build up a strong selling organization for the purpose, which it lacks at present.

Quality of Indian-made rubber goods.

9. Considering that this industry practically came into existence during the war and had to contend with serious handicaps for lack of technical personnel, up-to-date machinery and the right quality of stores and materials, it was creditable that the industry was able to manufacture a large variety of general and mechanical rubber goods so as to meet the requirements of defence, railways and industries generally, and that the quality of the products, though admittedly inferior in some cases to that of the imports, was acceptable to the consumers, including the defence services and the railways. We have good reasons to believe that, given proper facilities for re-equipment and technical guidance and supply of essential stores, the industry can in a short time improve the quality of its products to the standard of the corresponding imports.

Existing rates of import duty.

10. The rates of import duty on the principal categories of general and mechanical rubber goods are given below :—

Item No.	Name of Article.	Nature of duty.	Standard rate of duty.	Preferential rate of duty if the article is the produce or manufacture of		
				The U. K.	A Br. Colony.	Burma.
	(*i*) Hoses generally come under item 39 (1) of the Import Tariff Schedule which is given below :—					
39(1)	Rubber tyres and tubes and other manufactures of rubber, not otherwise specified, excluding apparel and boots and shoes.	Revenue	30 per cent *ad-valorem*.	..	..	12 per cent *ad-valorem*.
	(*ii*) But pneumatic tool hose, when coming as part of machinery, is assessed under 72(3), which is given below :—					
72(3)	Component parts of machinery as defined in Item Nos. 72, 72(1) and 72(2), namely, such parts only as are essential for the working of the machine or apparatus and have been given for that purpose some special shape or quality which would not be essential for their use for any other purpose. Provided that articles which do not satisfy this condition shall also be deemed to be component parts of the machine to which they belong if they are essential to its operation and are imported with it in such quantities as may appear to the Collector of Customs to be reasonable.	Revenue	10 per cent *ad-valorem*.	..	..	Free.
	(*iii*) Battery container and Motor Car fan belts come under item 75(1) of the Import Tariff Schedule, which is shown below :—					
75(1)	Motor cars including taxi cabs and articles (other than rubber tyres and tubes) adapted for use as parts and accessories thereof, provided that	Preferential revenue.	45 per cent *ad-valorem*.	36 per cent *ad-valorem*.	..	24 per cent *ad-valorem*.

Item No.	Name of Article.	Nature of duty.	Standard rate of duty.	Preferential rate of duty if article is the produce or manufacture of		
				The U. K.	A Br. Colony.	Burma.
75(1) *contd.*	such articles as are ordinarily also used for other purposes than as parts and accessories of motor vehicles included in this item or in Item Nos. 75(2) and 75(3) shall be dutiable at the rate of duty specified for such articles.					

(*iv*) Football bladders, squash balls and children's plyballs are governed by item 84, which is given below :—

84	Toys, games, playing cards and requisites for games and sports bird shot, toy cannons, air guns and air pistols for the time being excluded in any part of British India from the operation of all the prohibitions and directions contained in the Indian Arms Act, 1878, and bows and arrows.	Revenue	60 per cent *ad-valorem*.	..	..	12 per cent *ad-valorem*.

C. i. f. prices and landed costs.

11. The following information has been furnished by our Technical Adviser, Mr. Minahan.

(1) *Hoses.*

Item	Unit	C.I.F. Price	Duty (30%)	Landing & Clearing Charges (1½%)	Landed Cost	
					Without duty	With duty
Delivery Hose (Unarmoured)		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
½" × 2 Ply. ..	Foot	0 7 4	0 2 2	0 0 1	0 7 5	0 9 7
1½" × 4 Ply. ..	"	1 6 11	0 6 10	0 0 4	1 7 3	1 14 1

(1)—*Hoses*—concld.

Item	Unit	C.I.F. Price	Duty (30%)	Landing & Clearing Charges (1¼%)	Landed Cost	
					Without duty	With duty
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Suction Hose.						
2" × 4 Ply. ..	Foot	2 9 6	0 12 5	0 0 9	2 10 2	3 6 7
4" × 6 Ply. ..	,,	7 9 1	2 4 4	0 1 10	7 10 11	9 15 3
Acid Resisting Hose.						
½" × 2 Ply. ..	,,	0 6 0	0 1 10	0 0 1	0 6 1	0 7 11
1" × 4 Ply. ..	,,	1 11 6	0 8 3	0 0 5	1 11 10	2 4 1
Pneumatic Tool Hose.						
½" × 7 Ply. ..	,,	1 5 6	0 2 2 (10%)	0 0 4	1 5 10	1 8 0
Oil Resisting Hose.						
2" × 4 Ply. ..	,,	3 14 4	1 2 8	0 0 11	3 15 3	5 1 11
Radiator Hose.						
1½" × 3 Ply. ..	,,	0 15 0	0 4 6	0 0 3	0 15 3	1 3 9
(2) *Moulded goods.*—Duty (36%)						
Motor Car Fan Belts. Ford and Chevrolet. D. 274 (Car and Truck).	Each	2 15 3	1 1 0	0 0 8	2 15 11	4 0 1
(3) *Battery containers.*						
SV-13 plate ..	Each.	6 14 8	2 7 10	0 1 8	7 0 4	9 8 2

Comparison of fair selling price and landed cost : No need of protection at present.

12. Three factories were selected for the purpose of cost investigation, *viz.*, Travancore Rubber Works, Trivandrum, Bengal Waterproof Works, Calcutta, and National Rubber Manufacturers (till lately A. K. Sarkar, Ltd.), Calcutta. All these three firms in their replies to the questionnaire had asked for protection When, however, our Cost Accounts Officer went to Travancore, he was told by the management of the factory that they did not require any protection at present, but they agreed to allow two items to be costed, *viz.*, delivery hose and

suction hose. Later on, when the Cost Accounts Officer proceeded to Calcutta, he was informed by the management of Bengal Waterproof Works that they did not require any protection for the time being though they would require certain general facilities from Government. Their cost was, therefore, not investigated. The management of the National Rubber Manufacturers, Ltd., informed the Cost Accounts Officer that though they manufactured a large variety of items of rubber goods, they apprehended competition only in respect of six types of hose, motor car fan belts and battery containers. In view of the fact that two out of the three factories selected for cost investigation, definitely said that they did not require protection for any of the large variety of items manufactured by them and also in view of the fact that the third factory was able to compete with the imports in respect of all items, except a few, it would be proper to conclude that there is no case for the protection of this section of the Indian rubber manufacturing industry (general and mechanical rubber goods). This conclusion is re-inforced by the result of a comparison between the estimated fair selling prices of certain selected items of rubber goods and the landed costs of corresponding imports. As the firms concerned have wished that their cost data should be treated as confidential, the details of the estimates of costs are not given in this report. The comparative prices of imports and indigenous products are given below :—

COMPARATIVE STATEMENT OF FAIR SELLING PRICES OF INDIAN MANUFACTURES AND LANDED COSTS OF IMPORTS.

	Delivery Hose		Suction Hose		Acid Resisting Hose		Pneumatic Hose	Oil Resisting Hose	Radiator Hose	Fan Belts (moulded goods)	Battery container (Ebonite goods)
	½"×2 ply. per ft.	1½"×4 ply. per ft.	2"×4 ply. per ft.	4"×6 ply. per ft.	½"×2 ply. per ft.	1"×4 ply. per ft.	½"×7 ply. per ft.	2"×4 ply. per ft.	1½"×3 ply. per ft.	Each	6 volt× 13 plate Each
Fair selling price (Firm A) ..	0 7 3	0 15 8	2 5 6	4 5 10	0 9 1	1 0 10	0 12 1	2 9 7	0 12 7	2 4 8	8 14 11
Fair Selling price (Firm B) ..	0 5 9	0 11 8	1 8 11	3 10 5	..	..	..	..	..	..	..
Landed cost without duty ..	0 7 5	1 7 3	2 10 2	7 10 11	0 6 1	1 11 10	1 5 10	3 15 3	0 15 3	2 15 11	7 0 4
Duty (30%)	0 2 2	0 6 10	0 12 5	2 4 4	0 1 10	0 8 3	0 2 2 (10%)	1 2 8	0 4 6	1 1 0 (38%)	2 7 10 (36%)
Landed cost with duty (1946) ..	0 9 7	1 14 1	3 6 7	9 15 3	0 7 11	2 4 1	1 8 0	5 1 11	1 3 9	4 0 11	9 6 2

Interest at 4 per cent. on the working capital and return at 10 per cent. on the block, together with the other normal items, are included in the fair selling price. So far as the price of raw rubber is concerned, we were informed that, pending the institution of the proposed Rubber Control (*vide* Rubber Production and Marketing Bill 1947), the price has been fixed at 78 cents per lb. We were, however, advised that, for the next two or three years, it would be safe to allow a rate of 87·5 cents or 14 annas per lb. inclusive of freight, handling charges, etc., and this has been done. The estimates of fair selling prices are based on the data supplied by the management of each of the two factories costed, which, however, could not at all be checked by reference to their financial books. It must also be mentioned that the costs of production in the Calcutta factory were based on the actual production of only one month, *viz.*, December 1946, because the factory had recently changed hands and could not supply cost data for any other period. On account of these unusual features, the estimates of fair selling prices lose much of their value and could not be accepted by the Board as determining the measure of protection that might be necessary. Even if they are accepted for what they are worth, they do not, by comparison with the landed costs of imports, indicate the necessity for any protection. It will be seen that in respect of 9 out of the 11 items in the list, the fair selling prices of the Indian products are lower than the landed costs without duty of the corresponding imports. It will also be noted that in the cases of 6 out of these 9 articles, the fair selling prices of indigenous articles are considerably less than the landed costs of imports without duty. In respect of two items only, *viz.*, acid resisting hose $\frac{1}{2}'' \times 2$ ply and battery container, the fair selling prices of the indigenous products are somewhat higher than the landed costs without duty of the imported articles. Taking all the items together and considering that the fair selling prices of the Indian-made rubber goods have been estimated on the basis of cost data supplied by the factory managements, which could not be checked by the Cost Accounts Officer by reference to their financial books, and further that the estimates in the case of the Calcutta factory were based on the cost data of only one month for which the new management had run the factory, it can be said definitely that the indigenous industry has no competition to fear from imports, and therefore does not require any protecton at the present time.

Prospects of future competition.

13. As will be seen from the statistics of imports given in Appendix III, the main pre-war competition in general rubber goods so far as imports are concerned was from U.K., Japan, Germany and U.S.A. in the order named. Japan and Germany may be left out of account for the next two or three years. In so far as U.K. is concerned, we are informed on reliable authority that, while there is no fear of competition from that source during 1947, imports may increase appreciably in 1948 and still more in 1949. In so far as U.S.A. is concerned, though the country has now a very much expanded capacity, continued labour trouble has impeded its conversion to peacetime production as quickly as was originally anticipated. But when its full capacity becomes effective, there would be a big surplus

available for export and quite possibly a large part of the surplus may find its way into India. In this case also, therefore, there may be no serious competition in 1947, but competition may be severe from 1948 onwards. It would thus follow that though there may be no serious competition from the chief exporting countries in 1947, the situation may change to the detriment of the Indian rubber industry from 1948 onwards. It is, therefore, important that the industry, while improving its efficiency, should at the same time carefully watch the state of competition and collect data of import prices, so that, as soon as competition is seen to have become serious enough to jeopardise its stability, it may apply to Government for a reconsideration of its case.

Summary of conclusions and recommendations.

14. Our conclusions and recommendations may be summed up as follows :—

(*i*) In respect of practically all the items of general and mechanical rubber goods there is more than sufficient capacity in existence to satisfy the requirements of the country. (Paragraph 7).

(*ii*) A majority of the factories require to be equipped with up-to-date machinery. We recommend that all reasonable facilities should be given to the rubber manufacturers to get the requisite machinery from any part of the world including hard currency countries like U.S.A. (Paragraph 8).

(*iii*) The industry is weak on the technical side. We recommend that a rubber technological institute should be established by Government at an early date and that, in the meantime, the services of three or four foreign experts should be secured by Government for providing technical advice to the manufacturers. (Paragraph 8).

(*iv*) Some of the manufacturers of waterproof fabrics cannot keep up the standard of their products due to the lack of proper quality of fabrics. Incidentally, some of the cycle tyre manufacturers are also reported to be unable to go ahead with their expansion programme, due to the non-availability of tyre cords of requisite specifications. (Paragraph 8).

(*v*) We suggest that the rubber manufacturers should prepare a consolidated list of their requirements in respect of cords, fabrics and other stores and materials and approach the Government of India Department concerned for the necessary allocation. (Paragraph 8).

(*vi*) While recognizing that there is an overall shortage of certain requisite materials like textile fabrics and tyre cords in the country, we recommend that Government should give high priority to the requirements of the rubber manufacturing industry in the allocation of fabrics and cords. (Paragraph 8).

(*vii*) Though the quality of general and mechanical rubber goods produced in the country is admittedly inferior in some cases to that of the imports, it has been acceptable to the consumers including the defence services and the railways. (Paragraph 9).

(*viii*) Given proper facilities for re-equipment and technical guidance and supply of essential stores, the industry can in a short time improve the quality of its products to the standard of the imports. (Paragraph 9).

(*ix*) Two of the three factories selected for cost investigation definitely stated that they did not require protection for any of the large variety of items manufactured by them and the third factory also stated that it was able to compete with the imports in respect of all items, except a few, which by itself would show that there is hardly any case for the protection of this section of the Indian rubber manufacturing industry (general and mechanical rubber goods). (Paragraph 12).

(*x*) A comparison of fair selling price and landed cost also indicates that there is no necessity for protection at present. (Paragraph 12).

(*xi*) Though there may be no serious competition from the chief exporting countries in 1947, the situation may change to the detriment of the Indian industry from 1948 onwards. (Paragraph 13).

(*xii*) It is important that the industry, while improving its efficiency, should at the same time carefully watch the state of competition and collect data of import prices, so that, as soon as competition from imports is seen to have become serious enough to jeopardise its stability, it may apply to Government for a reconsideration of its case. (Paragraph 13).

Acknowledgments.

15. The Board wishes to express its thanks to Mr. D. J. Minahan, Technical Adviser, and Mr. A. K. M. Pillai of the Department of Industries and Supplies, Government of India, for their valuable help and advice, Mr. O. N. Anand, Cost Accounts Officer, for investigating the costs, and Rai Sahib S. C. Aggarwal, Deputy Secretary, Dr. Rama Varma, Assistant Secretary, and the Office staff, for assistance in connection with the inquiry. The Board is also grateful to Dunlops, Calcutta, for sparing their Officer, Mr. Minahan, to advise it on technical matters despite inconvenience to themselves caused by his frequent and long periods of absence.

SHANMUKHAM CHETTY—*President.*

C. C. DESAI—*Member-Secretary.*

H. L. DEY—*Member.*

S. C. AGGARWAL—*Deputy Secretary.*

BOMBAY;
The 2nd April 1947.

APPENDIX I.

(*Vide* PARAGRAPH 5).

List of firms, associations or persons to whom the questionnaire was issued and of those who replied to it.

	Whether replied or not.
PRODUCERS:	
1. The Nagpur Rubber Industry, Nagpur	Yes.
2. The Pioneer Rubber Mills, Sialkot	,,
3. The Travancore Rubber Works, Trivandrum	,,
4. Hindustan Rubber Works Ltd., Calcutta	,,
5. United Rubber Industries, Wazirabad	,,
6. The Cosmos Rubber Industries Ltd., Dadar, Bombay	,,
7. Sri Krishna Rubber Works, Virar, Bombay	,,
8. American Rubber Mills, Sialkot City	,,
9. National Rubber Manufacturers, Ltd. (till lately A. K. Sarkar), Calcutta	,,
10. The National India Rubber Works, Ltd., Sialkot City	,,
11. Hindustan Tyre Ltd., Bombay 11	,,
12. Ramlal Rubber Manufacturing Co., Worli, Bombay	,,
13. Randerian Rubber & Chemical Works, Delhi	,,
14. Swastik Rubber Products, Poona	,,
15. Prabhat Rubber Works, Bombay 2	,,
16. Associated Industries Ltd., Bhavnagar	,,
17. Kale Rubber Works Ltd., Bombay	Not replied.
18. Northland Rubber Mills Ltd., Sialkot City	,,
19. Popular Rubber Works, Lahore	,,
20. India Latex Industry, Mochi Gate, Lahore	,,
21. Mysore Rubber Factory, Mysore State	,,
22. Aspinwal & Co. (Travancore Ltd.), Alleppey	,,
23. Tropex Rubber Co., 453, Kalbadevi Road, Bombay	,,
24. Sind Auto Engineering Co., Karachi	,,
25. Star Tyre Service Co., Mount Road, Madras	,,
26. Modern Rubber Mfg. Co., Fort, Bombay	,,
27. Vasudev Pandurang Aroskar, Vile Parle, Bombay	,,
28. The Northern India Industries Ltd., Sialkot City	,,
29. R. B. S. Jain Rubber Mills, Liloosh, Howrah	,,
30. The Indian Rubber Goods Mfg. Co., Calcutta	,,
31. Indian Cable Co. Ltd., Hare St., Calcutta	,,
32. National Insulated Cable Co., Ltd., Calcutta	,,
33. Bata Shoe Co. Ltd., Batanagar, 24 Parganas, Bengal	,,
34. Kohinoor Rubber Works, Ltd., Calcutta	,,
35. United Rubber Works, Calcutta	,,
36. Central Rubber Works, Calcutta	,,
37. East India Rubber Works, Calcutta	,,

	Whether replied or not.
PRODUCERS—*concld.*	
38. Assam Bengal Rubber Works, Calcutta	Not replied.
39. Janda Rubber Mfg. Co., Garden Road, Bombay	,,
40. The Universal Rubber Works, Wadi Bunder, Bombay 9	,,
41. Bengal Waterproof Works (1940) Ltd., Calcutta	,,
IMPORTERS:	
1. The Leyland & Birmingham Rubber Co. (India) Ltd., 12 Mission Row, Calcutta	Replied.
2. The India Rubber, Gutta Percha & Telegraph Works Co. Ltd., Post Box 144, Calcutta	,,
3. J. H. Fenner & Co. (India) Ltd., Calcutta	Not replied.
4. Mather & Platt Ltd., 7 Hare Street, Calcutta	,,
5. Indian General Navigation and Railway Co., Ltd., Post Box 157, Calcutta	,,
CONSUMERS:	
1. The Lakshmi Sports Co., Sialkot City	Replied.
2. D. Srinivasan & Co., 9 Wall Tax Road, Madras 3	,,
3. Allied Agencies, Outside Delhi Gate, Lahore	,,
4. The Gramophone Co., Ltd., P. B. No. 48, Calcutta	Not replied.
5. Jessop & Co., Ltd., 93, Clive Street, Calcutta	,,
6. Alliance Jute Mills Co., Ltd., 2 Hare Street, Calcutta	,,
7. Burn & Co., Ltd., P.B. No. 2, Howrah	,,
8. Mackinnon Mackenzie & Co., P.B. 163, Calcutta	,,
9. Shaw Wallace & Co., 4 Bankshall Street, Calcutta	,,
10. The Indian Iron and Steel Co., Ltd., Chasnalla Colliery, P.O. Pathardihi (E. I. Railway)	,,
11. Purna Chandra Das & Sons, 12 Clive Street, Calcutta	,,
ASSOCIATIONS:	
1. Indian Rubber Industries Association, Bombay	Replied.
2. Association of Rubber Manufacturers in India, Calcutta	Not replied.

APPENDIX II.

(*Vide* PARAGRAPH 5).

List of persons who were present at the public inquiry.

I. *Manufacturers* :		
Mr. Jog and Mr. Wazalwar	Representing ..	The Nagpur Rubber Industry, Nagpur.
Mr. G. Gangadharan ..	,, ..	Hindustan Tyres, Ltd., Bombay.
Mr. W. S. Desai	,, ..	Swastik Rubber Products, Poona.
Mr. Lalit Mohan Jamnadas	,, ..	1. The Cosmos India Rubber Works, Ltd., Bombay. 2. Indian Rubber Industries Association, Bombay.
Mr. Prem Chand	,, ..	Associated Industries, Ltd., Bhavanagar.
Mr. D. Bannerjee	,, ..	National Rubber Manufactures Ltd., Calcutta.
Mr. M. Desai	,, ..	Ramlal Rubber Manufacturing Co., Bombay.
Mr. Dass	,, ..	Bengal Waterproof Works (1940) Ltd., Calcutta.
II. *Growers' Interests* :		
Mr. Parambil Lonappan ..	,, ..	The Rubber Growers' Association, Kottayam, Travancore.
Mr. A. V. Thomas ..	,, ..	Do.
III. *Importers* :		
Mr. E. R. Park	,, ..	1. Leyland and Birmingham Rubber Co. (India) Ltd., Calcutta. 2. The India Rubber, Gutta Percha & Telegraph Works Co., Ltd., Calcutta. 3. J. H. Fenner & Co. (India) Ltd., Calcutta. 4. Lewis and Tylor Ltd., Calcutta. 5. Balmer Lawrie & Co., Ltd., Calcutta. 6. Kilburn & Co., Calcutta. 7. Roberts McLean & Co., Ltd., Calcutta.
IV. *Consumers* :		
Mr. R. C. Laliwalla ..	,, ..	The Western India Manufacturers Agencies, Ltd., Bombay.
Mr. S. D. Daruwalla ..	,, ..	M/s. Sorabji D. Daruwalla, Round Building, Bombay.
Mr. J. M. Brand ..	,, ..	M/s. Symonds & Co., Bombay.
Mr. K. G. Parameswaran ..	,, ..	The Standard Batteries Ltd., Bombay.
Mr. R. C. Jain	,, ..	Allied Agencies, Outside Delhi Gate, Lahore.
Mr. L. D'Mellow, Assistant Collector of Stores ..	,, ..	G. I. P. Railway.
Mr. F. J. Vachha, Superintendent of Stores ..	,, ..	B. B. & C. I. Railway.

APPENDIX III.

(Vide PARAGRAPH 13).

Statistics relating to imports of general and mechanical rubber goods.

	36-37	37-38	38-39	39-40	40-41	41-42	42-43	43-44	44-45	45-46
I. VALUE OF IMPORTS FROM :—										
1. U.K. .. .. Rs.(lakhs)	10·17	13·03	11·03	8·17	8·78	10·61	5·45	1·28	..	..
2. Burma .. .. .. ,,	..	0·21	0·14	0·03	0·08	0·13	0·01	..	..	..
3. Straits Settlements .. .. ,,	0·45	0·39	0·45	0·65	1·56	4·42	..	..	..	..
4. Canada .. .. .. ,,	0·13	0·40	0·52	1·11	1·70	1·96	0·35	..	..	..
5. Commonwealth of Australia .. ,,	0·15	..	..	0·01	0·04	1·44	..	0·28	..	..
6. Germany .. .. .. ,,	4·06	5·97	7·02	3·76	0·02	..	..	..	..	..
7. Japan .. .. .. ,,	6·91	6·96	4·95	7·33	7·58	1·59	..	..	..	..
8. U.S.A. .. .. .. ,,	5·18	5·83	2·77	3·75	6·09	6·23	1·81	0·36		..
9. Other Countries .. .. ,,	0·65	0·66	0·60	0·27	0·05	1·04	1·15	0·85	..	..
Total ..	24·68*	33·45	27·48	25·08	26·20	27·42	8·77	2·77	10·61	7·49

(* Excluding imports into Burma).

NOTE :—Import statistics of rubber goods are only shown separately under the following headings in the Sea-borne Trade Accounts.

1. Pneumatic Motor Covers and Tubes.
2. Pneumatic Motor Cycle Covers and Tubes.
3. Pneumatic Cycle Covers and Tubes.
4. Solid Rubber Tyres for motor vehicles.
5. Apparel and boots and shoes.
6. Other Rubber Manufactures.

Evidently "other rubber manufactures" include general and mechanical rubber goods. But it is not clear whether all general and mechanical rubber goods are included in the "other manufactures". Because in the Customs Tariff Schedule several items coming as parts of machinery or as sports goods are shown under different items for purposes of duty. Similarly in the Sea-borne Trade Accounts also, items coming as parts of machinery might have been shown under those headings rather than under the heading "other rubber manufactures."

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REPORT

OF THE

Indian Tariff Board

ON THE

SEWING MACHINE INDUSTRY

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REPORT

OF THE

Indian Tariff Board

ON THE

SEWING MACHINE INDUSTRY

108061

PERSONNEL OF THE BOARD

SIR R. K. SHANMUKHAM CHETTY, K.C.I.E.—PRESIDENT.

MR. C. C. DESAI, C.I.E., I.C.S.—MEMBER-SECRETARY.

DR. NAZIR AHMAD, O.B.E.—MEMBER.

DR. H. L. DEY, D.Sc. (Lond.)—MEMBER.

RAI SAHIB S. C. AGGARWAL, B.A. (HONS.), DIPL. MIN. ENG. (LEEDS), F.G.S. (LONDON)—DEPUTY SECRETARY.

PERSONNEL OF THE PANEL WHICH HEARD THIS CASE

SIR R. K. SHANMUKHAM CHETTY, K.C.I.E.—PRESIDENT.

MR. C. C. DESAI, C.I.E., I.C.S.—MEMBER-SECRETARY.

DR. H. L. DEY, D.Sc. (LOND.)—MEMBER.

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REPORT ON THE SEWING MACHINE INDUSTRY

Reference to the Board.

1. An application for the protection of the Sewing Machine Industry was made to the Commerce Department, Government of India, by Jay Engineering Works, Ltd., Calcutta, on the 6th November 1945. The application was referred to the Tariff Board for investigation by the Government of India, Department of Commerce, in their Resolution No. 218-T (55)/45, dated the 4th May 1946, read with their earlier Resolution dated the 3rd November 1945.

Terms of reference.

2. The terms of reference to the Board, which are stated in the Resolution of the Government of India, Department of Commerce, No. 218-T (55)/45, dated the 3rd November 1945. are as follows :—

"In the case of each industry the Board will, after such examination as it considers necessary, report whether the industry satisfies the following conditions :—

(1) that it is established and conducted on sound business lines ;

(2) (*a*) that, having regard to the natural or economic advantages enjoyed by the industry and its actual or probable costs, it is likely within a reasonable time to develop sufficiently to be able to carry on successfully without protection or State assistance ; or

(*b*) that it is an industry to which it is desirable in the national interest to grant protection or assistance and that the probable cost of such protection or assistance to the community is not excessive.

Where a claim to protection or assistance is found to be established, i.e., if condition (1) and condition (2) (*a*) or (*b*) are satisfied, the Board will recommend—

(i) whether, at what rate and in respect of what articles, or class or description of articles, a protective duty should be imposed ;

(ii) what additional or alternative measures should be taken to protect or assist the industry ; and

(iii) for what period, not exceeding three years, the tariff or other measures recommended should remain in force.

In making its recommendations the Board will give due weight to the interests of the consumer in the light of the prevailing conditions and also consider how the recommendations affect industries using the articles in respect of which protection is to be granted. Since relief, to be effective, should be afforded without delay, the Board is requested to complete its inquiries with all possible expedition and to submit a report as soon as the investigation of the claim of each industry is concluded."

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Method of inquiry.

3. On the 27th June 1946, the Board issued a Press Communique inviting associations, firms or persons, including producers, consumers and importers, directly interested in this industry or dependent upon it for their equipment, who wished their views to be considered, to submit their representations. Detailed questionnaires were also issued to producers, consumers and importers. A list of associations or persons to whom the questionnaires were issued and of those from whom replies or memoranda were received will be found in Appendix I and Appendix II respectively. A list of the factories visited by or on behalf of the Board will be found in Appendix III. Oral evidence of representatives of producers, consumers and importers was taken at Bombay on the 26th and 27th November 1946. A list of the witnesses examined is given in Appendix IV.

History of the industry.

4. (*a*) The known producers of sewing machines in India are (1) Jay Engineering Works, Ltd., Calcutta, (2) Indian Sewing Machine Manufacturing Co., Ltd., Lahore, (3) The Delhi Sewing Machine Co., Ltd., Delhi and (4) Sewing Machine Factory, Peshawar.

(*b*) Jay Engineering Works, Ltd., Calcutta, was registered in 1936 and commenced production of sewing machines in 1937, the trade name of these machines being " Usha ". At the outbreak of war, however, the firm was required by Government to switch on a major portion of its productive capacity to the production of munitions, such as, halden apparatus, pressure gauges, vapourising tubes, special types of stoves, thread milling machines, aircraft components and various other precision stores. Consequently, the development of sewing machine manufacture was held up for a few years. In 1943, the firm was given import licences to import from U. K. and U. S. A. plant and machine tools for the sewing machine industry. During the war period its production of sewing machines was practically confined to meeting the requirements of the Supply Department of the Central Government. When the war was over, it started concentrating again on the manufacture of sewing machines and is now reorganising the factory on mass production lines. It has secured the services of one Mr. J. D. Scaife who is a past President of the Institution of Engineers in U. K. and an ex-employee of the Singer Sewing Machine Company. The firm is manufacturing all parts and components of a sewing machine except needles. It also manufactures hurricane lanterns, enamels and paints, cooking ranges, electric fans and other mechanical appliances. The Indian Sewing Machine Manufacturing Company, Lahore, was registered early in 1938 and commenced manufacture of sewing machines in the same year, its brand being called " Auluk ". During the war period, however, this firm also discontinued the production of sewing machines and concentrated on the manufacture of machine chucks instead. Recently, however, it has reverted to the manufacture of sewing machines as the main line of business along with the production of self-centring lathe chucks. The Delhi Sewing Machine Company, Limited, commenced manufacture of sewing machines in 1938, their trade name being " Daisy ". It had to stop manufacturing sewing machines during the war owing to restrictions on raw materials. It is at present producing mainly spare parts but is reported to be contemplating re-organising the works so as to undertake the manufacture of sewing machines on a fairly large scale. About the middle of 1946 another small factory was started in Peshawar largely for the purpose of re-employment of ex-servicemen. It is established as a co-operative society, has a capital of Rs. 90,000 and employs 60 men.

(c) The productive capacity of the industry is estimated as follows :—

(Figures indicate whole machines)

Name of the factory	1946-47	1947-48	1948-49
1. Jay Engineering Works, Ltd., Calcutta .	6,000	10,000	15,000
2. Indian Sewing Machine Manufacturing Co., Lahore.	1,800	1,800	1,800
3. Delhi Sewing Machine Co., Delhi ..	200	200	200
4. Peshawar Sewing Machine Factory, Peshawar.			
Total ..	8,000	12,000	17,000

Uses.

5. Sewing machine is a domestic appliance. It is also required for the tailoring industry and for certain other industrial purposes, such as, shoe-making, harness-making and the making of hand-bags, canvas tarpaulin and thousand and one other things in which sewing or stitching is necessary.

Imports.

6. Before 1937-38, imports of sewing machines were not separately recorded in the Account of Sea-Borne Trade. They were included under "Machinery and component parts thereof, which require for their operation less than one-quarter of one-brake-horse-power." Since 1937-38 imports of sewing machines have been as follows :—

Year	No.	Value in Rupees.
1937-38	90,023	66,65,809
1938-39	61,231	46,31,242
1939-40	75,382	61,35,303
1940-41	34,586	38,68,946
1941-42	41,011	42,06,096
1942-43	18,575	18,61,523
1943-44	4,389	7,32,089
1944-45	10,050	11,86,141
1945-46	28,273	33,60,804

The statistics of imports of sewing machines, country-wise, will be found in Appendix V. It will be seen that in the pre-war period the bulk of the imports came from U. K., while quite an appreciable number was imported from Germany. A few hundred machines were also imported from Japan and U. S. A. During the war period also U. K. was the principal source of supply while U. S. A. was the only other supplier. U. K. is also likely to be the major source of supply in the near future, while other possible suppliers are U. S. A., Sweden and Italy. It is agreed by both the producers and the importers that for the purpose of this case U. K. may be regarded as the principal competing country.

Estimated domestic demand and domestic production.

7. From the available statistics, it is found that in the pre-war period when there was no domestic production, the highest demand was 90,000 machines in 1937-38. During the war period, the supply was restricted and India was starved in respect of her requirements of sewing machines. Taking into consideration the growth of population and the rise in the standard of living, together with the unsatisfied demand of wartime, it is estimated that the requirements in the next three years would be approximately 120,000 machines per annum. In paragraph 4, we have seen that the estimated domestic production of sewing machines will be 8,000 in 1946-47, 12,000 in 1947-48, and 17,000 in 1948-49. There being thus a big gap between the anticipated demand and the expected domestic production, there is considerable scope for investment of fresh capital in expanding the existing units and in establishing new ones. Since sewing machine is a necessary appliance for household purposes as well as for national economy, we think it desirable that the domestic production of sewing machines should be encouraged and stepped up. We, therefore, recommend that necessary facilities for the importation of machinery for the sewing machine industry should be afforded and that the duty on such machinery should be refunded with retrospective effect from the 4th May 1946, which is the date of reference of the case to the Board.

Raw materials.

8. The raw materials required for the sewing machine industry are as follows :—

(1) Meehanite castings.

(2) Steel of various kinds, such as, (i) M.S. Black sheet, (ii) M.S. bar, (iii) M.S. wire, (iv) carbon steel rod, (v) M.S. bright sheet, (vi) M. S. bright rolled flat, (vii) M.S. deep drawing sheet, (viii) silver steel rod, (ix) spring steel strip coil and (x) spring steel wire.

(3) Wood : teakwood and plywood.

(4) Painting and plating materials, such as, stoving enamel, lacquers, thinners, transfers, copper anodes and nickel anodes.

(5) Rubber ring, and leather belt (for treadle machine only).

(6) Accessories, such as, oil bottle, oil can, needle and metal accessory box.

A sewing machine factory is expected to have a foundry of its own to enable castings to be made therein. Of the ten different kinds of steel mentioned above, the first four are available in the country, while the remaining six have to be imported. We understand that in the near future, two other items of steel in the list, viz., M. S. bright rolled flat and M.S. deep drawing sheet, will also be manufactured in the country. Previously the industry used indigenous paints and plating materials, which did not, however, give a good finish. Imported paints of better quality are therefore now being used.

Process of manufacture.

9. Sewing machine is an assembly of a number of parts machined out of iron castings, steel forgings and steel sections. A very high degree of precision is required in the finishing of all internal and external dimensions in order to ensure light running and interchangeability of parts. Such of the parts as have to withstand maximum wear and tear have to be subjected to proper heat treatment for hardening.

Several machining operations which cannot be accomplished efficiently on ordinary machines require special purpose machines. All gauges, tools, jigs and fixtures are made by precision machines in the tool room where extra care is required to check their dimensions and ensure hardness of the parts which have to withstand great wear and tear caused by constant use. All exposed surfaces of the sewing machine are either electro-plated or enamelled. The handmachine is mounted on a wooden base while the treadle machine is mounted on a wooden board which is supported by an iron stand. A light wooden covering is provided to close the top portion of the machine.

Quality of the indigenous product.

10. The indigenous sewing machine is at present somewhat inferior to the imported machine in its wearing quality, finish and appearance. We have reason to believe that the wearing quality of the Indian-made sewing machines will come up to the mark when the manufacturer has acquired all the tool room equipment and his technical personnel have achieved the necessary skill. The finish and appearance should also improve with the use of better qualities of finishing paints and plating materials. Considering the infancy of the industry in the country, the product turned out is creditable and is being daily improved to attain the standard of the best imported machines in appearance, performance and adaptability.

Board's estimate of cost of production and fair selling price.

11. (1) *Economic unit.*—In estimating the cost of production and fair selling price of sewing machines for the purpose of determining the extent of protection necessary for the domestic industry, it is important to fix the size or productive capacity of an economic unit. The trend of expert opinion is to the effect that in the present conditions of demand for sewing machines and supply of skilled labour and technicians in the country, a firm with a productive capacity of 50,000 machines per annum should be regarded as an economic unit. There is at present no firm which possesses this capacity. The biggest existing unit in the country is Jay Engineering, which produced 5,061 machines in 1945-46 and is expected to produce 6,000 machines in 1946-47, 10,000 machines in 1947-48, and 15,000 machines in 1948-49. The two most serious bottlenecks in the expansion of output, which will take years to overcome, are those in respect of tool room equipment and technical personnel. Considering all the circumstances of the case, we feel that Jay Engineering has been doing its best to remove these bottle-necks and expand production and that during the transition period it might be regarded as an economic unit.

(2) *Estimate of cost and fair selling price.*—The Board's Cost Account Officer investigated the cost of production of sewing machines at Jay Engineering Works for the year 1945-46. The cost records maintained by the firm were found to be somewhat incomplete and unsatisfactory, a defect which is common to most of our industries. With the help of the Board's Technical Adviser and in consultation with the technician and the manager of the firm, the Cost Accounts Officer built up the production cost for the year 1945-46 and prepared an estimate of cost of production for the years 1946-47, 1947-48 and 1948-49. The Board scrutinised the cost data and arrived at the following estimate of future cost of production and fair selling price of hand sewing machines and treadle sewing machines in the country :—

Board's Estimate of Cost and fair Selling Price of one Hand Sewing Machine.

	1946-47			1947-48			1948-49		
Estimated Output	3,000 machines			5,000 machines			7,500 machines		
	Quantity	Rate	Amount	Quantity	Rate	Amount	Quantity	Rate	Amount
			Rs.			Rs.			Rs.
(1) Materials :—									
(*a*) Meehanite castings.	46 lbs. ..	Rs. 22 per cwt.	9·036	46 lbs. ..	Rs. 19 per cwt.	7·804	46 lbs. ..	Rs. 17·5 per cwt.	7·186
(*b*) Steel ..	13·274 lbs.	Rs. 612·727 per ton.	3·631	13·247 lbs. ..	Rs. 612·727 per ton.	3·631	13·274 lbs. ..	Rs. 612·727 per ton.	3·631
(*c*) Wood ..	....	....	11·195	....	....	11·195	....	....	11·195
(*d*) Paints, plating materials, sundry materials and accessories.	....	....	3·833	....	....	3·833	....	....	3·833
TOTAL MATERIALS COST .	....	....	27·695	....	....	26·463	....	....	25·845
(2) Power and fuel ..	....	....	3·356	....	....	2·103	....	....	1·677
(3) Labour ..	....	....	35·955	....	....	30·085	....	....	25·124
(4) Repairs, maintenance, consumable stores and small tools.	....	....	4·500	....	....	4·220	....	....	4·000

(5) Establishment ..	....	....	22·363	....	....	15·194	....	....	10·956
(6) Depreciation ..	....	....	23·027	....	....	16·041	....	....	13·282
(7) Other Overheads ..	....	....	4·574	....	....	3·099	....	....	2·132
(8) Packing ..	....	....	6·417	....	....	6·417	....	....	6·417
(9) Advertisement ..	....	....	5·000	....	....	5·500	....	....	5·500
(10) Allowance for railway freight.	....	....	1·500	....	....	1·500	....	....	1·500
(11) Interest on working capital at 4 %.	....	(On Rs. 88,000)	1·173	....	(On Rs. 1,25,200)	1·002	....	(On Rs. 1,66,500)	0·889
Cost of Production ..	....	....	135·560	....	....	111·624	....	....	97·322
Return on Fixed Capital at 10%.	....	(On Rs. 5,16,500)	17·216	....	(On Rs. 5,66,500)	11·330	....	(On Rs. 6,16,500)	8·220
Fair Selling Price per Machine.	.. ..	....	152·776 or Say, Rs. 153	....	....	122·954 or Say, Rs. 123	....		105·542 or Say, Rs. 106

Note.—The output is divided equally between hand and treadle machines.

Board's Estimate of Cost and Fair Selling Price of one Treadle Sewing Machine.

	1946-47			1947-48			1948-49		
Estimated Output	3,000 machines			5,000 machines			7,500 machines		
	Quantity	Rate	Amount	Quantity	Rate	Amount	Quantity	Rate	Amount
			Rs.			Rs.			Rs.
(1) Materials :—									
(*a*) Meehanite castings.	104 lbs.	Rs. 22 per cwt.	20·527	104 lbs. ..	Rs. 19 per cwt.	17·727	104 lbs. ..	Rs. 17·5 per cwt.	16·328
(*b*) Steel ..	10·774 lbs.	Rs. 612·727 per ton.	2·899	10·774 lbs. ..	Rs. 612·727 per ton.	2·899	10·774 ..	Rs. 612·727 per ton.	2·899
(*c*) Wood ..	....	....	12·949	....	....	12·949	....	....	12·949
(*d*) Paints, plating materials, sundry materials and accessories	....	....	5·560	....	....	5·560	....	....	5·560
TOTAL MATERIALS COST	....	....	41·935	....	....	39·135	....	....	37·736
(2) Power and fuel ..	....	....	3·356	....	....	2·103	....	....	1·677
(3) Labour ..	....	....	35·955	....	....	30·085	....	....	25·124
(4) Repairs, maintenance, consumable stores and small tools.	....	....	4·500	....	....	4·220	....	....	4·000

(5) Establishment ..	....	....	22·363	....	....	15·194	....	....	10·956
(6) Depreciation ..	....	....	23·027	....	....	16·041	....	....	13·282
(7) Other Overheads ..	....	....	4·574	....	....	3·099	....	....	2·132
(8) Packing ..	....	....	10·953	....	....	10·953	....	....	10·953
(9) Advertisement ..	....	....	5·000	....	....	5·500	....	....	5·500
(10) Allowance for railway freight.	....	....	2·500	....	....	2·500	....	....	2·500
(11) Interest on working capital at 4 per cent.	....	(On Rs. 1,02,500)	1·367	....	(On Rs. 1,48,000)	1·184	....	(On Rs. 1,99,100)	1·062
COST OF PRODUCTION. ...	....	....	155·530	....	....	130·014	....	....	114·922
Return on fixed capital at 10 per cent.	....	(On Rs. 5,16,500)	17·216	....	(On Rs. 5,66,500)	11·330		(On Rs. 6,16,500)	8·220
FAIR SELLING PRICE PER MACHINE.	....	....	172·746 or Say, Rs. 173	....	....	141·344 or Say, Rs. 141	....	....	123·142 or Say, Rs. 123

(3) *Comments on the estimate* :—

(i) *Materials.*—The rate shown against castings is inclusive of the cost of materials, labour and other overheads, for the foundry. Till about the end of 1945, the foundry was doing much war work. Production in the foundry has now decreased and consequently the cost of production of meehanite castings has gone up from Rs. 14 per cwt. in 1945-46 to Rs. 22 per cwt. in 1946-47. With larger production in subsequent years, the cost of castings will go down. The cost of steel, wood, paints and plating materials has also slightly risen on account of the use of better materials.

(ii) *Power and fuel.*—Rates for coal and furnace oil given by the firm were somewhat on the high side and appropriate rates in line with current market prices have been adopted.

(iii) *Labour.*—In the estimate of cost of labour, including dearness allowance, it has been assumed that the efficiency of labour will have improved and the existing bottle-neck in respect of tools, jigs and special purpose machinery will have been progressively removed and that consequently the output of machines per worker will go up from 13 in 1945-46 to 18 in 1946-47, 22 in 1947-48, and 26 in 1948-49.

(iv) *Establishment.*—The present strength of the staff is considered sufficient for the estimated increase in output during the three years. Provision, however, has been made for increment of salary at 5 per cent. per annum.

(v) *Depreciation.*—Depreciation at income-tax schedule rates has been allowed on the written-down value of buildings, plant and machinery and other fixtures. Jigs, tools, patterns and gauges on which a considerable amount has already been spent and is likely to be spent in the next three years are subjected to very heavy wear and tear and do not last for more than three or four years. The Board accepted the contention of the manufacturers that the expenditure on these items should be written off within three or four years. Accordingly, the balance standing to the debit of such account as on 31st March 1946 plus the estimated expenditure in the next three years minus the estimated value of such jigs and tools as on the 31st March 1949 has been spread over the total number of machines produced in 1945-46 and expected to be produced in 1946-47, 1947-48 and 1948-49, and the amount thus written off has been included under depreciation.

(vi) *Packing.*—There will be a slight increase in the cost of packing on account of the higher price of packing materials, as also for the reason that the proportion of sales of machines to Government, which are supplied unpacked, will decrease appreciably.

(vii) *Advertisement.*—During wartime imports were restricted and there was no competition. Consequently, expenses on account of advertisement were low. In future years, however, competition is likely to be keener rendering intensive advertisement necessary. We have allowed Rs. 5 per machine for 1946-47 and Rs. 5·5 per machine for 1947-48 and 1948-49.

(viii) *Allowance for railway freight.*—During the first 10 months of 1946 the number of machines despatched by Jay Engineering from Calcutta to Bombay, Madras, Karachi and other places came to 48 per cent. of their total output and the average freight per machine despatched was Rs. 4. Assuming that the despatches outside Calcutta in the next three years will be about 50

per cent. of the total output, the average freight that can be allowed over the total output is Rs. 2 per machine. The packed weight of a hand machine is 1½ maunds and that of a treadle machine is 2½ maunds. We have, therefore, given a freight allowance of Rs. 1-8-0 per hand machine and Rs. 2-8-0 per treadle machine.

(ix) *Interest on working capital.*—Working capital has been taken to be equal to three months' cost of production, excluding allowance for depreciation but including allowance for the write-off of expenditure on tools, jigs, patterns and gauges. The working capital for hand machines and treadle machines has been separately calculated and shown in the cost statement, and interest at 4 per cent. thereon has been allowed.

(x) *Return on fixed capital.*—The total value of all the fixed assets of Jay Engineering as on the 31st March 1946 is Rs. 17,13,964, out of which Rs. 9,40,452 is allocated to the sewing machine section. The likely additions to fixed assets during the years 1946-47, 1947-48 and 1948-49 are estimated at Rs. 92,739, Rs. 1,00,000 and Rs. 1,00,000 respectively. The total value of all the assets is divided equally between hand machine and treadle machine, and profit thereon has been allowed at 10 per cent.

(4) *Maintenance of Cost Accounts.*—The Indian Sewing Machine Manufacturing Company, Lahore, could not supply any satisfactory cost data. Jay Engineering Works also did not keep its cost accounts in a systematic form. Should the case of the industry come up again for a review, the firms engaged in the industry will have to produce complete cost data. We recommend that in future they should maintain separate and satisfactory cost accounts for the sewing machines produced by them.

Existing duty.

12. Under the present Customs Tariff (First Schedule), the duty is as follows :—

Item No.	Name of article	Nature of duty	Standard rate of duty	Preferential rate of duty if the article is the produce or manufacture of		
				The United Kingdom	A British Colony	Burma
72 (10)..	Sewing and knitting machines (and parts thereof) to be worked by manual labour or which require for their operation less than one-quarter of one brake-horse-power.	Preferential revenue.	36 per cent. ad valorem.	24 per cent. ad valorem.	24 per cent. ad valorem.	12 per cent ad valorem.

Since the bulk of the imports of sewing machines come from U.K., the effective rate of duty is 24 per cent. *ad valorem.*

C.I.F. and landed cost of imports.

13. Singer sewing machines constitute the bulk of the imports. The only other type of machine that is known to have been imported in recent months is Husqvrna treadle machine from Sweden at a landed cost, inclusive of duty, of Rs. 233-13-11, which is far above the landed cost of Singer sewing machines and is much higher than the fair selling price of indigenous machines. This brand of machine cannot, therefore, be regarded as competitive with Indian-made machines. We find that Singer sewing machines Nos. 15K 81 (hand) and 15-K 80 (treadle) are the two machines that compete respectively with the hand machine and treadle machine produced in the country. The c.i.f. prices and landed costs of these two types of machines are as follows :—

	15K 81 (hand)	15K 80 (treadle)
	Rs. a. p.	Rs. a. p.
C.I.F.	99 2 8	118 15 8
Duty at 24% on c.i.f.	23 12 9	28 8 11
Landing and clearing charges	0 7 3	0 15 5
Landed cost	123 6 8	148 8 0

It should be mentioned that in calculating the c.i.f. and landed cost of imports we have omitted an item of cost as given by Singer Sewing Machine Co., viz., war risk insurance, which is hardly justified at present.

Retail selling prices of imports and indigenous products.

14. (1) *Current retail prices.*—Normally a comparison between the landed cost of imports and the fair selling price of the indigenous article is sufficient to give an indication of the degree of competition affecting the home industry. But in the case of sewing machines we have found that such a comparison does not fully serve the purpose, because, unlike most other cases, there is in this case a very big margin of difference between the landed cost and the retail selling price in the country. Thus, for instance, while the landed cost, inclusive of duty, of Singer hand machine 15K 81 is Rs. 123-6-8, its retail selling price is Rs. 228; again, while the landed cost, inclusive of duty, of Singer treadle machine 15K 80 is Rs. 148-8-0, its retail selling price in the country is Rs. 264. In order to find out the relationship between the ex-factory price of Singer sewing machines in U.K. and their c.i.f. price and retail selling price in India, a reference was made to the Company's London office through the High Commissioner for India, but the required information was not furnished. In any case, it is clear that the margin between the landed cost, inclusive of duty, and the retail selling price, of Singer sewing machines in India is unusual and *prima facie* excessive. Since production in England and importation and retail sale in India are in the hands of the same firm, it may be possible for the firm to vary the break-up of the retail selling price into landed cost and selling expenses within wide limits. Moreover, due to the shortage of supply at the present time, Singer sewing machines hold a semi-monopolistic position in the Indian market and their retail selling prices are capable of variations within fairly wide limits. Due to the peculiar circumstances of the case, it appears to us that there is a degree of artificiality about the c.i.f. prices in that they do not fully indicate the extent of competition and that the measure of protection necessary for the indigenous industry should also be judged by a comparison between the retail selling prices of the imported and indigenous

articles. A comparative statement of landed cost, inclusive of duty, and retail selling prices of the imported and indigenous machines is given below :—

Hand Machine

		Rs.	a.	p.
Singer 15K 81	Landed cost	123	6	8
	Retail selling price	228	0	0
Usha	Retail selling price	170	0	0

Treadle Machine

		Rs.	a.	p.
Singer 15K 80	Landed cost	148	8	0
	Retail selling price	264	0	0
Usha	Retail selling price	210	0	0

(2) *Future retail prices of indigenous machines.*—It was represented to us that, due to the existence of a strong bias on the part of consumer in favour of the imported machine, the indigenous machine should sell at Rs. 50 less than the corresponding imported machine, which may be regarded as a premium for prejudice. We think that this difference is justified, but that, as the indigenous machine is expected to improve in quality, finish and appearance, year by year, the margin of difference on account of consumers' bias should diminish by, say, Rs. 10 every year. If the retail selling prices of Singer sewing machines remain stable at their present level, viz., Rs. 228 for hand machine and Rs. 264 for treadle machine, the retail selling price of "Usha" hand machine which can bear an increase from the present figure of Rs. 170 to Rs. 178 in the current year, should rise to Rs. 188 in 1947-48 and to Rs. 198 in 1948-49. Similarly, the retail selling price of "Usha" treadle machine which can bear an increase from the present figure of Rs. 210 to Rs. 214 in the current year, should rise to Rs. 224 in 1947-48 and to Rs. 234 in 1948-49. It was brought to our notice that "Auluk" hand machines and treadle machines, manufactured by the Indian Sewing Machine Manufacturing Co., Lahore, are selling at present at Rs. 200 and Rs. 250 respectively, i.e., at only Rs. 28 and Rs. 14 cheaper than Singer machines of corresponding types. And it was suggested that the prices of "Usha" machines should also be raised to the same level. Although such an increase in the price of "Usha" machines might possibly be sustained in the present state of short supply, such a policy would be unfavourable to the acquisition of "goodwill" and to the building up of a stable and extensive demand, particularly in view of the existence of a consumers' bias in favour of imported machines. We are of the opinion that the policy adopted by Jay Engineering of gradually raising the prices according to the improvement in the quality of their machines year by year will lead to a better result in the long run. We shall, therefore, take the price margins between Singer machines and "Usha" machines as indicated above in determining the measure of protection for the indigenous industry.

15. (1) *Comparative statements.*—The measure of protection required by the sewing machine industry is indicated below :—

Measure of protection.

(A) *Comparative statement of fair selling price and landed cost of hand and treadle machines*

	1946-47	1947-48	1948-49
	Per Hand Machine		
	Rs. a. p.	Rs. a. p.	Rs. a. p.
) Fair selling price of "Usha" ..	153 0 0	123 0 0	106 0 0
anded cost (inclusive of 24% duty) of Singer 15K 81.	123 6 8	123 6 8	123 6 8
	Per Treadle Machine		
i) Fair selling price of "Usha" ..	173 0 0	141 0 0	123 0 0
anded cost (inclusive of 24 % duty) of Singer 15K 80.	148 8 0	148 8 0	148 8 0

If we were to follow the usual method of comparing the landed cost with the ir selling price for determining the degree of protection for the sewing machine dustry the figures given above would indicate that, assuming the present import rices to be stable, the existing duty would be inadequate for protection in 1946-47 ; hat it would be just sufficient for the purpose in 1947-48 ; and that it would be much ore than adequate in 1948-49. Over the period as a whole, therefore, the existing uty would appear to afford sufficient protection to the industry. But, as explained paragraph 14, this method of procedure would not by itself be adequate to show he extent of competition in this particular case.

(B) *Comparative statement of retail selling prices of hand and treadle machines*

	1946-47	1947-48	1948-49
	Per Hand Machine		
	Rs.	Rs.	Rs.
) Singer 15K 81	228	228	228
Usha"	170	188	198
	Per Treadle Machine		
i) Singer 15K 80	264	264	264
Usha"	210	224	234

We now proceed to consider whether the margin of difference indicated above etween the retail selling prices of Singer sewing machines and "Usha" sewing achines will give adequate protection to the indigenous industry. We were nformed that the retail selling prices of "Usha" machines are made up of ex-factory rice plus freight plus selling commission at 20 per cent. of retail selling price plus

Rs. 5 per machine. Ex-factory price *plus* freight would be equivalent to th estimated fair selling price. On this basis the balance sheet of profit and loss accoun of " Usha " machines would be as follows :—

Hand Machines

	1946-47	1947-48	1948-49
	Rs.	Rs.	Rs.
(*a*) Maximum retail selling price per machine.	170	188	198
(*b*) Ex-factory price plus freight (Estimated fair selling price) per machine.	153	123	106
(*c*) Selling commission—20% of retail selling price *plus* Rs. 5 per machine.	39	43 (nearest rupee)	45 (nearest rupee
(*d*) Total cost per machine (*b* + *c*) ..	192	166	151
(*e*) Profit or loss per machine (*a* − *d*) ..	—22	+22	+47
(*f*) Total profit or loss on hand machines ..	—66,000 (3,000 machines)	+1,10,000 (5,000 machines)	+3,52,500 (7,500 machine

Treadle Machines

	1946-47	1947-48	1948-49
	Rs.	Rs.	Rs.
(*a*) Maximum retail selling price per machine.	210	224	234
(*b*) Ex-factory price plus freight (Estimated fair selling price) per machine.	173	141	123
(*c*) Selling commission —20% of retail selling price *plus* Rs. 5 per machine.	47	50 (nearest rupee)	52 (nearest rupee)
(*d*) Total cost per machine (*b* + *c*) ..	220	191	175
(*e*) Profit or loss per machine (*a* — *d*) ..	—10	+33	+59
(*f*) Total profit or loss on treadle machines .	—30,000 (3,000 machines)	+1,65,000 (5,000 machines)	+4,42,500 (7,500 machines)

Balance Sheet of profit and loss

	1946-47	1947-48	1948-49	Total
	Rs.	Rs.	Rs.	Rs.
Hand machine ..	—66,000	+10,000	+3,52,500	+3,96,50
Treadle machine ..	—30,000	+1,65,000	+4,42,500	+5,77,50
Total ..	—96,000	+2,75,000	+7,95,000	+9,74,00

The balance sheet given above would show that Jay Engineering Company likely to earn a profit of Rs. 9,74,000 over their total expected sales of sew machines in the three years 1946-47, 1947-48 and 1948-49. This result should achieved if the retail selling prices of Singer machines remain what they are present and the retail selling prices of " Usha " machines in the next two years fixed, as they should be, according to the calculations given in paragraph 14.

(2) *Amount of duty.*—From the comparative statements of landed cost, inclusive of duty, and fair selling price, as well as of retail selling prices, given in the preceding paragraph, it would be seen that the existing duty will give adequate protection to the indigenous industry during the three years 1946-47, 1947-48 and 1948-49. But in order to give an assurance of protection to the industry and thereby encourage its rapid expansion, it is necessary that the present duty should be stabilised for this period. We, therefore, recommend that the existing preferential revenue duty of 24 per cent. *ad valorem* should be converted into a protective duty and that it should remain in force for the period ending 31st March 1949. But in the meantime, the position should be carefully watched and, if there is an appreciable fall in the c.i.f. prices or in the selling expenses of Singer sewing machines 15K 81 and 15K 80, which may lower the margin of difference between the retail selling prices of these two Singer machines and those of corresponding " Usha " machines below the figures indicated above in paragraph 14 (2), that is, a difference of Rs. 50 in 1946-47, Rs. 40 in 1947-48 and Rs. 30 in 1948-49, the measure of protection is likely to be jeopardised and it would be open to the industry to apply to Government for a review of the case.

Proposed changes in the Customs Tariff.

16. The present tariff item 72 (10) of the First Schedule should be split up into two items as follows :—

Item	Article	Duty.
72 (10) ..	Knitting machines (and parts theoreof) to be worked by manual labour or which require for their operation less than one-quarter of one brake-horse-power.	The rate of duty to remain the same as now, on a preferential revenue basis.
72 (11) ..	Sewing machines (and parts thereof) to be worked by manual labour or which require for their operation less than one-quarter of one brake-horse-power.	There should be a protective duty of 24% ad valorem until the 31st March 1949.

Burden of protection.

17. We have recommended no increase in the present import duty on sewing machines. Consequently, our proposals would not lead to the imposition of any additional burden of protection on the community.

Eligibility for protection.

18. In the light of the past development and present position of the Indian sewing machine industry, we consider that it is established and conducted on sound business lines. It has got the advantages of an enormous home market and of the availability of nearly all essential raw materials. The biggest unit in the industry namely, Jay Engineering Works, has taken many important steps to remove the initial handicaps of the industry in the country. It has made considerable progress in equipping its tool room and in training its technicians and skilled personnel under expert supervision. As the estimate of its future retail selling prices would show, its competitive capacity will improve considerably by the end of 1948-49. Consequently, we may say that the industry is likely to develop sufficiently within a reasonable time to be able to dispense with protection or State assistance. Further, it is an altogether new and important line of industrial development in the country because it calls for skilled work of a high degree of

precision. It may be regarded as a valuable training ground for a class of high-grade technicians, who may be of great help in furthering the industrial development of the country. We, therefore, consider that this industry satisfies in a high degree all the conditions of eligibility for protection.

Summary of conclusions and recommendations.

19. Our conclusions and recommendations are summarised as under :—

(i) There are at present four known sewing machine factories in the country and their total output is expected to be 8,000 in 1946-47, 12,000 in 1947-48, and 17,000 in 1948-49. Paragraph 4.

(ii) The bulk of the imports of sewing machines come from U. K., while U. S. A., Sweden and Italy are likely to be additional sources of imports in the near future. Paragraph 6.

(iii) The domestic demand for sewing machines for the next three years is estimated to be 120,000 per annum, which is far in excess of the estimated domestic production. In order to encourage expansion of the industry, we recommend that the import duty on machinery required for the industry should be refunded with retrospective effect from the 4th May 1946, which is the date of the reference of the case to the Board. Paragraph 7.

(iv) Nearly all the essential raw materials of the industry are available in the country. Paragraph 8.

(v) The indigenous sewing machine is somewhat inferior to the imported machine in its wearing quality, finish and appearance but it has been improving of late and is expected to come up to the mark in future. Paragraph 10.

(vi) The industry should maintain satisfactory cost accounts for sewing machines in future. Paragraph 11 (4).

(vii) Singer Sewing Machines 15K 81 and 15K 80 are the two principal competitors with indigenous sewing machines. Paragraph 13.

(viii) The extent of competition between imported and indigenous machines is to be judged not only by a comparison between landed costs and fair selling prices but also by a comparison between retail selling prices of the two articles. Paragraph 14 (1).

(ix) Due to the existence of consumers' bias in favour of the imported machine, the retail selling price of the indigenous machine should be at least Rs. 50 less than the corresponding retail selling price of the imported machine in 1946-47, Rs. 40 less in 1947-48, and Rs. 30 less in 1948-49. Paragraph 14 (2).

(x) The effective duty on sewing machines is the present rate of 24 per cent. *ad valorem* applicable to imports from U. K. Paragraph 12.

(xi) A protective duty of 24 per cent. *ad valorem* should be imposed on sewing machines, which should remain in force up to the 31st March 1949. Paragraph 15 (2).

(xii) If there is an appreciable fall in the c.i.f. prices or in the selling expenses of Singer Sewing machines 15K 81 and 15K 80, which may lower the

margin of difference between the retail selling prices of these two Singer machines and the corresponding " Usha " machines below the figures indicated in paragraph 14 (2), that is, a difference of Rs. 50 in 1946-47, Rs. 40 in 1947-48 and Rs. 30 in 1948-49, the measure of protection is likely to be jeopardised, and it would be open to the industry to apply to Government for a review of the case. Paragraph 15 (2).

(xiii) The present Tariff Item 72 (10) of the First Schedule should be split up into two items as indicated in paragraph 16.

(xiv) Our proposals would not impose any additional burden of protection on the community. Paragraph 17.

(xv) The industry satisfies in a high degree the conditions of eligibility for protection. Paragraph 18.

20. The Board's thanks are due to Mr. Aftab Rai, of the Directorate-General of Disposals, Mr. Jangbir Singh, Development Officer, Department of Industries and Supplies, Government of India, and to Dr. P. N. Seth of Lahore, for helping the Board with their expert advice, and to Mr. O. N. Anand, Cost Accounts Officer, Mr. R. N. Kapur, Technical Adviser, Rai Saheb S. C. Aggarwal, Deputy Secretary, and Dr. Rama Varma, Assistant Secretary to the Board for their assistance in carrying out the inquiry.

Acknowledgments.

SHANMUKHAM CHETTY—PRESIDENT.

C. C. DESAI—MEMBER-SECRETARY.

H. L. DEY—MEMBER.

S. C. AGGARWAL—DEPUTY SECRETARY.

Bombay, dated the 10th January 1947.

APPENDIX I

List of firms or individuals to whom questionnaires were issued

Manufacturers :—

1. The Jay Engineering Works, Ltd., Calcutta.
2. Indian Sewing Machine Manufacturing Co., Ltd., Lahore.
3. The Delhi Sewing Machine Co., Ltd., Delhi.
4. Kalsa Cycle Works, Nawashahar, Jullunder, Punjab.
5. Sewing Machine Factory, Peshawar.

Consumers :—

1. Army and Navy Stores, Ltd., Bombay.
2. Messrs. Whiteaway Laidlaw & Co., Ltd., Bombay.
3. Messrs. Evans Fraser & Co., Ltd., Bombay.
4. Messrs. Pednekar & Co., Ltd., Bombay.
5. Messrs. Tailor & Co., Bombay.
6. Director (Clothing), Directorate-General, Ordnance Factories, New Delhi.

Importers :—

1. Messrs. Pednekar & Co., Bombay.
2. Messrs. Ameejee Valleejee & Sons, Karachi.
3. Union Industrial Co., Bangalore.
4. Messrs. Ramkumar Surajbaksh, Jaipur.
5. The Singer Sewing Machine Co., Bombay.
6. Messrs. Bell & Co., Ltd., Bombay.
7. Messrs. Shah & Co., Bombay.
8. Imperial Sewing Machine and Radios, Bombay.

APPENDIX II

List of firms and persons who sent replies to questionnaires

Producers :—

1. The Jay Engineering Works, Ltd., Calcutta.
2. Indian Sewing Machine Manufacturing Co., Ltd., Lahore.

Consumers :—

1. Army and Navy Stores, Ltd., Bombay.
2. Messrs. Whiteaway Laidlaw & Co., Bombay.
3. Messrs. Evans Fraser & Co., Bombay.
4. Messrs. Pednekar & Co., Ltd., Bombay.
5. Director (Clothing), Directorate-General, Ordnance Factories, New Delhi.

Importers :—

1. Messrs. Bell & Co., Ltd., Bombay.
2. Messrs. Shah & Co., Bombay.
3. The Singer Sewing Machine Co., Bombay.

APPENDIX III

List of factories visited by or on behalf of the Board.

Serial No.	Name of Factory	Visited by	Date
1.	The Jay Engineering Works, Ltd., Calcutta.	Mr. C. C. Desai ..	5th August 1946.
		Dr. H. L. Dey ..	
		Mr. R. N. Kapur ..	7th November 1946.
		Mr. O. N. Anand ..	
2.	Indian Sewing Machine Manufacturing Co., Ltd., Lahore.	Sir R. K. Shanmukham Chetty.	14th October 1946.
		Dr. Nazir Ahmad ..	
		Dr. H. L. Dey ..	
		Mr. R. N. Kapur ..	9th October 1946.
		Mr. O. N. Anand ..	10th October 1946.
3.	The Delhi Sewing Machine Co., Ltd., Delhi.	Mr. R. N. Kapur ..	30th October 1946.

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APPENDIX IV

List of witnesses examined at the public inquiry held on the 27th and 28th November 1916

Producers :—

1. Sir Shankerlal, Mr. T. R. Gupta and Mr. J. D. Scaife representing the Jay Engineering Works Ltd., Calcutta.

Importers :—

1. Mr. B. D. Minawalla representing The Singer Sewing Machine Co., Bombay.
2. Mr. S. S. Nair representing Messrs. Bell & Co., Ltd., Bombay.
3. Mr. V. H. Shah representing Messrs. Shah & Co., Bombay.
4. Mr. B. L. Desai representing Messrs. Pednekar & Co., Ltd., Bombay.
5. Mr. K. B. Shah representing The Imperial Sewing Machines & Radios, Bombay.

Suppliers of Raw Materials :—

1. Mr. B. N. Lam and Mr. H. N. Dalal representing Messrs. The Tata Iron & Steel Works Ltd., Bombay.

APPENDIX V

APPENDIX V

Statement showing the Quantity, Value and Average Value per unit of Imports of Sewing Machines into India since 1937-38

		1937-38	1938-39	1939-40	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46*
I. Quantity of Imports from :—										
U. K.	No. (000)	56·29	36·66	61·89	32·46	29·62	16·19	4·20	Information not available.	
Germany	„	31·59	23·61	12·16	0·01	....	....	....	„	„
Japan	„	0·69	0·21	0·35	1·01	0·01	....	....	„	„
U.S.A.	„	0·65	0·30	0·48	0·87	11·27	2·32	0·19		
Other Countries	„	0·80	0·45	0·50	0·24	0·11	0·07	....	„	„
Total Imports	„	90·02	61·23	75·38	34·59	41·01	18·58	4·39	10·05	18·81
II. Value of Imports from :—										
U.K.	Rs. (Lakhs)	42·73	28·16	50·44	34·75	27·97	15·37	6·40	Information not available	
Germany	„	21·94	17·37	8·61	0·01	....	....	....	„	„
Japan	„	0·20	0·10	0·07	0·12	0·04	....	....	„	„
U.S.A.	„	1·29	0·40	1·70	3·60	13·96	3·20	0·94	„	„

Other Countries.	„	0·50	0·28	0·53	0·21	0·09	0·04	0·01	„	„
Total Imports	„	66·66	46·21	61·35	38·69	42·06	18·61	7·35	11·86	24·09
III. Average Value per Unit of Imports from :—										
U. K.	Rs. As.	75 14	76 13	81 8	107 1	94 7	94 15	152 8	Information not available	
Germany	„	69 7	73 9	70 13	75 10	....	....	....	„	„
Japan	„	28 14	47 13	19 10	12 4	270 11	....	....	„	„
U.S.A.	„	200 5	132 9	354 12	413 3	123 15	137 15	498 10	„	„
Total Imports	„	74 1	75 10	81 6	111 14	102 9	100 3	167 6	118 0	128 1

*For nine months only from April to December 1946.

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GOVERNMENT OF INDIA

DEPARTMENT OF COMMERCE

REPORT

OF THE

INDIAN TARIFF BOARD

ON THE

PHOSPHATES AND PHOSPHORIC ACID INDUSTRY

CX-2-62.

1946

PERSONNEL OF THE BOARD.

SIR R. K. SHANMUKHAM CHETTY, K.C.I.E.—PRESIDENT.

MR. C. C. DESAI, C.I.E., I.C.S.—MEMBER-SECRETARY.

DR. NAZIR AHMAD, O.B.E.—MEMBER.

DR. H. L. DEY, D.SC. (Lond.)—MEMBER.

DR. B. K. MADAN, M.A., PH.D.—DEPUTY SECRETARY.

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REPORT ON THE PHOSPHATES AND PHOSPHORIC ACID INDUSTRY

Reference to the Board.

1. The case of phosphoric acid and phosphates was referred to the Tariff Board for examination by the Government of India, Department of Commerce, in their Resolution No. 218-T (55)/45, dated the 3rd November 1945 (Appendix I). The Resolution stated, *inter alia*, that, pending the formulation of a tariff policy appropriate to the post-war needs and conditions of the country and the establishment of permanent machinery for the purpose, Government would set up machinery for investigating claims from industries which had been started or developed in wartime and which were established on sound lines to assistance or protection during the transition period. The phosphoric acid and phosphates industry fell in this class, as it came into existence during the war and had applied for protection to enable it to compete with foreign imports.

Scope of inquiry.

2. In referring these industries to the Board, Government directed that the Board should, after such examination as it may consider necessary, report whether the industry satisfied the following conditions :—

(1) that it is established and conducted on sound business lines; and

(2) (*a*) that, having regard to the natural or economic advantages enjoyed by the industry and its actual or probable costs, it is likely within a reasonable time to develop sufficiently to be able to carry on successfully without protection or State assistance; or

(*b*) that it is an industry to which it is desirable in the national interest to grant protection or assistance and that the probable cost of such protection or assistance to the community is not excessive.

Where a claim to protection or assistance is found to be established, *i.e.*, if condition (1) and condition (2) (*a*) or (*b*) are satisfied, the Board will recommend—

(i) whether, at what rate and in respect of what articles, or class or description of articles, a protective duty should be imposed;

(ii) what additional or alternative measures should be taken to protect or assist the industry; and

(iii) for what period, not exceeding three years, the tariff or other measures recommended should remain in force.

Government further directed that in making its recommendations the Board should give due weight to the interests of the consumer

in the light of the prevailing conditions and also consider how the recommendations would affect industries using the articles in respect of which the protection was to be granted. In view of the fact that, with the cessation of hostilities, imports had already started, thereby offering serious competition to such industries, Government further requested the Board to complete the inquiries with all possible expedition and to submit a report as soon as investigation of the claim of each industry was concluded. It was decided by the Board that the inquiry covered by this report should include the following chemicals :—

phosphoric acid,
trisodium phosphate,
disodium phosphate,
monosodium phosphate, and
acid calcium phosphate including other salts of the calcium phosphate group.

It would thus be seen that the important group of chemicals, known as superphosphates, which are mainly used as fertilizers, were excluded from the scope of this inquiry.

Method of inquiry.

3. As a first step, the Board issued a communiqué to associations, firms or persons interested either in the manufacture or consumption of phosphoric acid and its sodium and calcium salts as enumerated above. In this communiqué the Board requested interested persons, firms and associations to submit such information as may be available with them with regard to the following items relating to these chemicals :

(1) annual consumption of the commodity in India for three years immediately preceding the war, and for the last three years ;

(2) quantity of indigenous production for the same periods as in (1) ;

(3) quantity of imports for the same periods as in (1) ;

(4) Pre-war and present cost of production of the indigenous commodities ;

(5) pre-war and present landed cost of imported commodities ;

(6) what duties are at present levied on these commodities ;

(7) difficulties, if any, encountered by the industry ;

(8) the exact nature, form and duration of assistance or protection desired ;

(9) how long the industry has been in existence, balance sheets of the last five years and general financial position of the company ;

(10) prospects of the industry in combating world competition on the expiry of protection ; and

(11) any special features of the industry which may call for specific action.

Following this step the Board issued a detailed questionnaire to firms and persons interested in the manufacture of these chemicals and a separate small questionnaire to their chief consumers and

asked them to submit their representations and replies by the 31st January 1946. A list of persons to whom this questionnaire was issued will be found in Appendix II. A list of persons and firms who submitted written representations with regard to any of the items dealing with the manufacture, consumption, use, etc., of these chemicals will be found in Appendix III; while the list of persons orally examined by the Board will be found in Appendix IV. The oral examination took place on the 28th February and the 1st March 1946.

History of the industry: Application for protection.

4. Phosphoric acid and its salts were not manufactured in India before the war. Their manufacture started in 1943 when the available supplies ran short. So far as the Board has been able to ascertain, the only factory producing these chemicals is the one belonging to Star Chemicals, Bombay, which came into existence in 1943 at the instance, and with the assistance, of the Chemicals Directorate, Directorate-General of Supply, New Delhi. This factory has supplied its products to the Chief Controller of Purchase (Supply), New Delhi, the North Western Railway, the Bombay, Baroda and Central India Railway, and several civilian consumers such as Tata Airlines and General Motors. The firm has represented that, since the beginning of 1945, there have been fairly heavy imports of these chemicals and it has been almost impossible for it to withstand competition without an adequate measure of protection.

Description of the process.

5. These chemicals form a well connected chain in which the first link is phosphoric acid which in the factory of Star Chemicals is made by the action of sulphuric acid on bonemeal. Bones are obtained locally from slaughter-houses, etc., and are calcinated at a high temperature. When the calcination is complete, the bones are powdered in a disintegrator and sieved through a mesh of 1/16 inch. The residual particles are again put into the disintegrator and sieved. The bone ash obtained in this way contains 82 per cent. to 85 per cent. calcium phosphate. Dilute sulphuric acid is added to the bone ash in a steam jacketed reaction vessel lined with lead. The mixture is agitated until the reaction is complete resulting in the production of dilute phosphoric acid and insoluble calcium phosphate. The latter is separated by means of vacuum filters connected directly to the reaction vessel, while the dilute phosphoric acid recovered from this process is concentrated in lead-lined vessels up to 80 per cent. to 85 per cent. concentration. The acid obtained in this way is decolourised by activated charcoal filter and finally passed in glass containers. If phosphatic rock is available, it may be used instead of bones, the later stages of the process being the same as described above. In the United States of America, large quantities of phosphoric acid are produced without the aid of sulphuric acid, *viz.*, by thermal

process. In this process, elemental phosphorous is first produced by heating tricalcium phosphate in the presence of carbon and silica which, on oxidation and solution in water, yields phosphoric acid. If phosphoric acid and its compounds are to be produced in large quantities in India, it might be necessary to consider the method of production which would avoid the use of sulphuric acid. It would, however, be necessary for this purpose to have supply of electric power at very low rates as the reduction has to be effected at high temperatures which can be achieved satisfactorily only in an electric furnace. It may be mentioned that the yield with the thermal method is about 80 per cent. as against 90 per cent. with the wet method in which sulphuric acid is used.

Uses.

6. These chemicals find numerous uses in industry as shown below :—

Phosphoric acid—

Medicinal purposes.
Manufacture of phosphates and hydrogen peroxide.
Drying agent in the synthesis of dyes and intermediates.
Incandescent light filaments.
Substitutes for tartaric and citric acids in the manufacture of jellies.
Essences and soft drinks.
Pickling and rust-proofing of iron.
Dental cements.
Engraving and lithography.
Coagulation of rubber latex.
Textiles (dyeing cotton and calico printing, brightening the colour of silks).
Manufacture of fertilizers.

Tri-sodium phosphate—

Water softeners.
Boiler compounds.
Proprietary soap powders and cleansers.
Textile industry.
Tanning industry.
Sugar purification.
Photographic developers.
Medicines (mild cathartic).

Di-sodium phosphates—

Chemicals.
Dyes.
Pharmaceuticals.
Fertilizers.
Textiles (weighting silk, dyeing and printing).
Fire-proofing wood and paper.
Ceramic glazes.
Tanning.
Paint pigments.

Di-sodium phosphates—cont.
Baking powder.
Galvanoplastic.
Analytical reagents.
Preservation of cheese.

Mono-sodium phosphates—
Baking powders.
Medicine (to increase the acidity of urine).

Acid calcium phosphate and acid sodium pyro-phosphates—
Baking powder and self-raising flour.

Metallic hypo-phosphites—
Mainly of calcium are of pharmaceutical importance; sodium-meta-phosphate in polymeric form as Graham Salt or sodium hexa-meta-phosphate is being widely used for softening water for domestic and laundry washing and boiler purposes.

It will be seen from a perusal of the above that the uses to which these articles are put can be divided broadly into two classes, *viz.*, (1) uses for external purposes and (2) uses for internal purposes. It is important to bear this distinction in mind inasmuch as the requirements in regard to purity and absence of deleterious ingredients like salts of lead and arsenic are different for the two categories. Whereas the products which are used for internal consumption must be absolutely pure and practically free from lead and arsenic, those required for external use need not be so pure. A firm which claims to manufacture these salts so as to be suitable for internal consumption must have the proper equipment to manufacture them pure.

In an industrially advanced country, phosphates are used in very large quantities as will be seen from the following table which gives the production of salts of phosphoric acid in the United States in 1939 together with their average prices :—

	Tons.	Price per ton.
		$
Tri-sodium phosphate	114,687	42·00
Di-sodium phosphate	13,627	90·60
Mono-sodium phosphate	3,197	136·20
Sodium pyro-phosphate	42,210	99·60
Sodium meta-phosphate, ammonium phosphate and others—(total value).	..	4,395,000

Annual consumption.

7. Since no separate figures for import of these chemicals have been maintained, it is difficult to gauge accurately their annual consumption in the country. In 1944–45, Star Chemicals manufactured 20 tons of phosphoric acid and 50 tons of its salts. This, however, does not represent the total consumption as certain quantities of imported

materials were available and were used along with the locally manufactured products. According to an estimate furnished by the Supply Department, the present consumption of phosphoric acid ranges from 30 tons to 40 tons per annum while future annual requirements of this product are estimated at about 50 tons. Similarly, the present consumption of di-sodium and tri-sodium phosphates is of the order of 120 tons to 150 tons per annum, while the estimated consumption for the next four years is about 250 tons per annum. The demand for hexa-meta-phosphate, tri-sodium phosphate and other proprietary brands has increased recently as the Indian railways have started treatment of boiler-feed waters with these chemicals, and in the shipping programme for 1945 provision was made for importing 180, 110 and 30 tons, respectively of these chemicals. Looking at the numerous uses of these chemicals, it is probable that their consumption in the country will increase, especially if the number of engineering firms increases in the next few years. We, therefore, estimate that the requirements of the country in the next few years will be about 50 tons of phosphoric acid and about 300 tons of the various phosphates excluding super-phosphates.

Imports.

8. Neither does the phosphoric acid nor any of these salts figure separately in the sea-borne trade accounts and therefore it is not possible to give any indication as to the imports of these products either before or during the war.

Domestic production.

9. As stated above, only one Indian factory manufacturing these chemicals applied for protection. It was stated on its behalf that its production capacity is such that, working three shifts per day, it can produce about 1 ton of phosphoric acid and 1 ton of salts per day. This appears to be an over-estimate as it does not take into account the time required for the cleaning of machines. It is clear, however, that even after making due allowance for this factor, the factory has sufficient capacity to meet the requirements of the country in phosphoric acid and its salts, excluding super-phosphates, in the near future.

Lack of statistics.

10. It has been noted above that statistics relating to imports and domestic production of these chemicals are not available. In its report on calcium chloride, the Board has drawn the attention of Government to the desirability of providing adequate machinery for maintaining a complete record of the imports of various articles as well as their production in the country so that these statistics may be available to Government departments and industrial and commercial bodies interested in these industries. The Board would again like to emphasise this point as the absence of reliable statistics in regard to import and domestic production of the items referred to it for examination is found to be a very severe handicap in its work.

We suggest that arrangements should be made for entering these items separately in statistics dealing with the sea-borne trade of India and that a survey of Indian chemical industries should be carried out so as to yield reliable data regarding the production of chemicals in the country.

Quality.

11. It has been stated above that these chemicals may be produced in two different qualities depending upon the degree of purity and the presence of salts of lead and arsenic. When they are required for external purposes, such as, removal of stain and rust, pickling of metals, softening water for boilers, etc., the quality need not be absolutely pure and presence of traces of impurities should not seriously affect the performance of these chemicals. When, on the other hand, they are required for internal consumption, such as medicinal purposes or for making baking powders, they have to be absolutely pure and must not contain more than four parts in a million of salts of lead or arsenic. The evidence produced before the Board by the consumers showed that for all commercial purposes the quality of the products prepared by Star Chemicals was satisfactory. On the other hand, the tests carried out on the acid calcium phosphate produced by the firm showed that it contained lead salts in excess of the standard laid down for internal consumption. The firm stated that it was due to its not being able to obtain stainless steel vessels for the preparation of pure compounds but that it had recently obtained the release orders for the metal and would install the vessels in the near future. The firm was confident that with the installation of reaction vessels made of stainless steel, it would be in a position to manufacture sodium and calcium salts of the required degree of purity. On the basis of the evidence placed before the Board, therefore, it may be stated that, whereas the firm is capable of manufacturing phosphoric acid and its salts in commercial quality, it has not been able in the past to manufacture phosphates of the pure quality, although it hopes to be able to do so as soon as it is in a position to install some new equipment. The manufacturers of baking powder also stated in the oral evidence that the acid calcium phosphate, in addition to containing more lead salt content than was permissible, was also not quite satisfactory in regard to colour and texture. The firm, however, stated that it was at present making experiments with a view to evolving the right type of material required by the baking powder industry and since the samples on which the baking powder industry's report was based formed a part of these experiments they should not be taken as final. The firm gave the assurance that it would be able to supply acid calcium phosphate of the required colour and texture and that the compounds made by it would also conform to the standard as regards the proportion of lead and arsenic salts when it was able to install stainless steel vessels.

Cost of production.

12. The Star Chemicals Factory was costed by a Cost Accounts Officer deputed by the Board, who went through the books of the factory and examined figures relating to cost of materials, labour charges, overheads, etc., of a representative period of production. These figures were further scrutinized by the Board in collaboration with the manufacturers with special regard to (1) the correct quantities of raw materials such as bones, sulphuric acid, soda ash, etc., required for the production of these chemicals, and (2) possible economies in labour charges as a result of rationalizing production in the factory.

The figures as finally arrived at by the Board, on the basis of an annual production of 100 tons of phosphoric acid and 150 tons of phosphates, are as follows :—

	Cost per ton. RS.
(*a*) *Phosphoric acid*—	
Bones 4·8 tons at Rs. 90 per ton	432
Sulphuric acid 2·2 tons at Rs. 160 per ton ..	352
Total cost of raw materials ..	784
Labour	90
Overheads	162
Packing	600
Depreciation on building and plant at statutory rates	32
Interest on working capital	6
Cost of production including packing ..	1,674
(*Or* Rs. 84 per cwt. approximately.)	
(*b*) *Sodium phosphates*—	
Phosphoric acid (prepared at the factory) 0·46 ton at Rs. 793 per ton (*plus* 5 per cent.)	383
Caustic soda 0·16 ton at Rs. 19-8-0 per cwt. ..	62
Soda ash 0·46 ton at Rs. 10 per cwt.	92
Total cost of raw materials ..	537
Labour	86
Overheads	153
Depreciation at statutory rates	32
Interest on working capital	3
Packing	40
Cost of production including packing ..	851
(*Or* Rs. 43 per cwt. approximately.)	

	Cost per ton. Rs.
(c) *Acid calcium phosphate*—	
Phosphoric acid 1·3 tons at Rs. 793 per ton (*plus* 5 per cent.)	1,082
Lime 0·40 ton at Rs. 60 per ton	24
Total cost of raw materials ..	1,106
Labour	60
Overheads	105
Depreciation at statutory rates	32
Interest on working capital	3
Packing	160
Cost of production including packing ..	1,466

(*Or* Rs. 73 per cwt. approximately.)

13. A few words of explanation are necessary in regard to the figures of cost of production given above. The price of bones has been taken at Rs. 90 per ton which is based upon the actual payment made by the factory just before the inquiry. We were informed by Dr. J. N. Ray of the Department of Industries and Supplies that there is a likelihood of the price of bones coming down; on the other hand, the firm stated that the price of bones was rising steadily owing to the export of increasingly large quantities of this material since the termination of war. We have taken the price as actually paid by the factory, but in this connexion we would like to suggest that the question of restricting the export of bones from the country may be considered by Government at an early date as it is a valuable raw material from which phosphoric acid, phosphates and super-phosphates can be prepared in the country, the latter being specially required for increasing the fertility of soil. It may be mentioned here that while 6,000 tons to 7,000 tons of super-phosphates were imported per annum before the war, the exports of bones and bone meal amounted to over 30,000 tons per year, from which over 6,000 tons of phosphates could be prepared. It is understood that plans are now under consideration for manufacturing 400,000 tons of ammonium sulphate to be used as fertilizers. In order that these fertilizers may yield the best results, we are informed that they would require at least 100,000 tons of super-phosphates. If valuable raw materials such as bones and phosphatic rock are allowed to be exported freely out of the country, it may not be possible to manufacture the required quantity of super-phosphates at economic prices, and the vital needs of the country in regard to soil fertility and crop production may suffer badly.

Price of sulphuric acid.

14. We have taken the price of sulphuric acid at Rs. 160 per ton, while the price actually paid by the factory in the past is considerably above this figure. Since, however, imported sulphur is now available at about Rs. 150 per ton, we are of the opinion that pending a detailed enquiry it should be possible for the acid manufacturers to supply sulphuric acid to the various consuming industries at a price not exceeding Rs. 160 per ton. This estimate is based upon the well-known relatoinship between the price of raw sulphur and sulphuric acid pervailing in other countries, even after allowing a very liberal margin of profit. In this connexion we would like to point out that sulphuric acid enters to such an extent in the manufacture of numerous chemicals that its consumption is often regarded as an index of the industrial development of a country. We, therefore, recommend that Government should take effective steps to see that this important basic chemical is supplied to consuming industries at a reasonable rate so that the industrial development of the country is not handicapped. One way of ensuring the supply of sulphuric acid to the industries at a reasonable price would be to issue import licences for sulphur only to those factories which would be willing to supply sulphuric acid at a fixed rate. If, however, this condition is not fulfilled and the consumers of sulphuric acid, such as manufacturers of phosphoric acid in the present inquiry, are compelled to buy sulphuric acid at higher rates, we suggest that the cost of manufacture of phosphoric acid and its salts should be linked up with the price of sulphuric acid, due allowance being made for the difference between the price allowed by us, *viz.*, Rs. 160 per ton, and the price actually paid by them to the manufacturers of sulphuric acid.

Sodium and calcium salts.

15. Phosphoric acid used for the manufacture of the sodium and calcium salts is produced in the factory itself. Therefore, in calculating the cost of production of these salts, we have taken the cost of raw materials necessary for the manufacture of the required quantities of phosphoric acid. Since, however, the phosphoric acid is produced in a dilute condition and contains some impurities, it has to be purified and concentrated before it can be used in the manufacture of its salts. Therefore, a sum of Rs. 9 per ton has been allowed as the cost of concentration of this acid, while a further allowance of 5 per cent. has been made on account of the impurities present in it. To the cost of phosphoric acid thus arrived at, the cost of other raw materials, labour charges, overheads, depreciation, etc., have been added for working out the cost of manufacture of the sodium and calcium salts. The yield of the salts has been taken at from 75 per cent. to 80 per cent. of the theoretical yield, which is on the low side, but it is expected that, with the application of better quality control methods, higher yield would be obtained in future. The cost of manufacture of tri-sodium

phosphate alone has been worked out, as it was felt that it would give a fair indication of cost for the whole sodium group. Allowance for depreciation has been made at a uniform rate for phosphoric acid and its salts in view of the fact that the factory would be engaged in manufacturing phosphoric acid partly for sale and partly for the production of its salts; and, therefore, in any process, practically the whole of its plant would be employed. Finally, the working capital of the company has been taken at Rs. 25,000 and the interest allowed on it at the rate of 4 per cent. has been allocated to the different items on the basis of their rated production of 100 tons for phosphoric acid and 150 tons for phosphates assumed above.

Fair selling price.

16. We must now work out the fair selling prices of these chemicals based on the cost of manufacture as obtained above. In order to do so, we must add to the cost of manufacture reasonable profits as well as railway freight. The block capital of the factory was stated to be Rs. 75,000. Profit has been allowed on it at the rate of 10 per cent. and has been allocated to the different items on the basis of the rated production of the factory. The products made by the firm in its factory at Bombay are supplied to consumers in all parts of India. In this respect the importing firms have a certain amount of advantage over the Bombay producer, since they can supply the imported products to the consumers from the nearest port of importation, *e.g.*, Calcutta, Bombay, Madras, etc. So far as sodium and acid calcium phosphates are concerned, the railway freights are comparatively small and no allowance has been made for them. The case of phosphoric acid, however, is different since the railway freight for this chemical is rather high, and if no allowance for it were made, the Indian firm at Bombay would stand at a considerable disadvantage as compared with the importing firms. Accordingly, an allowance of Rs. 140 per ton has been made for railway freight, which represents the average of short and long distances from Bombay to the main consuming centres in India. Thus the fair selling prices of these chemicals work out as follows:—

	Per ton. Rs.
Phosphoric acid—	
Cost of manufacture	1,674
Profit	45
Railway freight	140
Fair selling price ..	1,859
(*Or* Rs. 93 per cwt. approximately)	

	Per ton. Rs.
Sodium salts—	
Cost of manufacture	851
Profit	20
Fair selling price ..	871
(*Or* Rs. 44 per cwt. approximately.)	
Acid calcium phosphate—	
Cost of manufacture	1,466
Profit	20
Fair selling price ..	1,486
(*Or* Rs. 74 per cwt. approximately.)	

Cost of importation.

17. According to a leading firm of importers, the landed costs of these chemicals together with their break-up are as follows :—

(Figures in rupees per cwt.)

	Phosphoric acid.	Sodium phosphates.	Acid calcium phosphate.
C.i.f. price	75·73	45·330	39·66
Clearing charges	0·75	0·725	0·70
Landed cost, exduty	76·48	46·055	40·36
Duty	22·52	10·945	9·64
Landed cost	99·00	57·000	50·00

The following table shows the fair selling prices arrived at by us for the manufacture of the chemicals together with their landed costs (1) excluding duty, and (2) including duty at the rate of 30 per cent. for phosphoric acid and 24 per cent. for phosphates :—

(Figures in rupees per cwt.)

	Phosphoric acid.	Sodium phosphates.	Acid calcium phosphate.
Landed cost excluding duty	76·5	46	40
Landed cost including duty	99·0	57	50
Fair selling price	93·0	44	74

18. (*a*) *Phosphoric acid.*—It will appear from the above table that the landed cost, ex duty, of phosphoric acid f.o.r. Bombay is Rs. 76-8-0 per cwt. against the fair selling price of Rs. 93 per cwt. With the existing revenue duty of 30 per cent. *ad valorem*, the landed cost including duty comes to Rs. 99 per cwt. which just covers the fair selling price of the Indian manufacturer. The existing rate of duty, therefore, affords adequate protection to the home producer of phosphoric acid. In view, however, of the uncertainty of the recent c.i.f. price quotations, and of the future course of prices, and in order to afford the Indian producer time to expand his production and lay his plant out with an assurance of security against unfair competition from overseas imports, we recommend that the present 30 per cent. *ad valorem* duty on imports of phosphoric acid should be converted into a protective specific duty at an equivalent rate, *i.e.*, at Rs. 23 per cwt. on the basis of the existing c.i.f. price. This duty should be levied and remain in force up to the 31st March 1949. If the c.i.f. price of the imported acids falls below Rs. 70 per cwt., the rate of duty should be adjusted under section 4 (1) of the Indian Tariff Act, 1934, to safeguard the measure of protection recommended by us on the basis of the above fair selling price.

Measure of protection.

19. (*b*) *Sodium phosphates.*—It has been seen that the c.i.f. price of sodium phosphates is Rs. 45·33 per cwt. in respect of imports from the United Kingdom. August this, the fair selling price of these compounds has been estimated by us at Rs. 44 per cwt. The existing rates of duty are 24 per cent. *ad valorem* on imports from the United Kingdom and 36 per cent. on imports from other sources. These rates afford adequate protection against United Kingdom imports on the basis of the present landed cost and fair selling price. It is possible, however, that a larger measure of protection may be necessary in respect of imports from other countries, particularly the United States of America, if the prices of imports from these countries are much lower than the present prices of imports from the United Kingdom. For the reasons mentioned in the preceding paragraph, we recommend that the present *ad valorem* duty on sodium phosphates should be converted into a protective specific duty which works out at Rs. 11 per cwt. on the basis of the existing c.i.f. prices. This duty should remain in force up to the 31st March 1949. If the c.i.f. price of imports from any source declines below Rs. 34 per cwt., we recommend that the rate of duty should be varied under section 4 (1) of the Indian Tariff Act, 1934, so as to maintain the measure of protection recommended by us on the basis of the fair selling price estimated by us.

20. (*c*) *Acid calcium phosphate.*—The landed cost inclusive of duty of this article is Rs. 50 per cwt. against a fair selling price of Rs. 74 per cwt. The existing duty does not therefore afford

adequate protection to the industry. We recommend that a duty of Rs. 34 per cwt. (being the difference between the fair selling price and the landed cost ex duty) should be levied on imports of acid calcium phosphate and that it should remain in force up to the 31st March 1949. Should the c.i.f. price fall below the present level of Rs. 40 per cwt., section 4 (1) of the Indian Tariff Act, 1934, should be used to adjust the rate of duty so as to equalise the landed cost of imports to the fair selling price estimated by us.

Burden of protection.

21. (*a*) *Phosphoric acid.*—It has been found that the present rate of duty of 30 per cent. *ad valorem* gives adequate protection to the manufacturers of this chemical in India, the Board's recommendation merely consisting in converting the existing *ad valorem* revenue duty into a specific protective duty at an equivalent rate for the next three years. The question of burden of protection at an enhanced rate of duty, therefore, does not arise. It may, however, be mentioned that one of the principal uses to which phosphoric acid is put at present in India, is the removal of rust and stains from machinery parts. A leading firm of motor car engineers, which uses this chemical in fairly large quantities, stated that an increase of 4 annas per lb. in the cost of phosphoric acid would bring about an increase of Rs. 2 in the cost of cleaning the parts of a car before assembly; but since this would be only one of many items, it would actually represent a very small fraction of the total cost of doing the job. Similarly, according to another engineering firm which uses this chemical for cleaning parts of old machinery and plant, the cost of phosphoric acid represents but an insignificant portion of the total cost of doing the job. Our estimates of the fair selling prices are based upon the availability of sulphuric acid and bones at certain rates. Even if these raw materials have to be purchased at higher rates as a result of which a higher fair selling price has to be allowed, thereby involving the imposition of an additional protective duty, the extra cost to the consumers of this chemical, especially the engineering firms, would be very small.

(*b*) *Sodium phosphates.*—As in the case of phosphoric acid, we have nearly recommended a conversion of the existing revenue duty into an equivalent protective duty which should afford adequate protection to the Indian manufacturers of sodium phosphates. The question of extra burden on the consumers arising out of protection, therefore, does not arise. The incidence of the protective duty recommended by us amounts to only 1½ annas per lb. which represents a very small proportion of the cost of processes such as tanning, fire-proofing of wood and paper, water softening, etc., in which these salts are used.

(*c*) *Acid calcium phosphate.*—This salt is largely used in making baking powder and self-raising flour. According to the information furnished by a leading firm, the cost of acid calcium phosphate represents roughly 14 cent. of the cost of baking

powder. This is undoubtedly an appreciable percentage, but in this connection we were informed that if the price of acid calcium phosphate is Re. 1-2-0 per lb., the cost of the baking powder would work out at Rs. 32-8-0 per case, while the cost of imported powder is Rs. 50 per case. It would, therefore, seem that with the duty recommended by us, there is sufficient margin for the indigenous baking powder industry to compete with foreign imports. If, however, the price of imported baking powder falls below a level at which it becomes uneconomical for the industry to manufacture it in India, its case will have to be examined as a separate issue.

Eligibility for protection.

22. This industry came into being during the war and as such a good deal of machinery and plant had to be fabricated in the country. The firm of Star Chemicals showed enterprise and resourcefulness in setting up the factory in the face of the difficult conditions brought about by the war, and though there is room for further improvement, it succeeded in putting up a plant capable of yielding the acid and its salts of commercial quality. It is also confident that, with the installation of reaction vessels made of stainless steel, it would be in a position to prepare these compounds of the B.P. (pure) quality. In view of the restricted demand in wartime, the production in the factory has been rather small. The firm has also been alive to the necessity of making by-products such as glue for which the necessary equipment is being installed and has agreed to give a credit for a part of the price realized from the sale of glue in order to lower the cost of manufacture of phosphoric acid. Taking into account all these factors, we are satisfied that the industry has been established, and is being conducted on sound business lines and thus satisfies the first condition laid down by Government.

23. Of the raw materials required in the manufacture of phosphoric acid and its salts, bones and sulphuric acid are produced in the country, while soda ash and caustic soda are also available from local manufacture or imports. There is a definite market for phosphoric acid and its sodium and calcium salts and though at present this market is rather small, it is probable that it will expand as the various industries which consume these articles are established in India. The industry, therefore, possesses natural or economic advantages by way of raw materials and potential markets. The costs of manufacture worked out by us are not excessive compared to the cost of imported articles, and even where certain additional duties have been recommended by us, the burden on the consuming industries is, on the whole, small. As regards the likelihood, within a reasonable time, of this industry being developed sufficiently to be able to carry on successfully without protection, it should be pointed out that all would depend mainly upon the cost of the raw materials, especially bones or phosphatic rock, sulphuric acid,

caustic soda and soda ash. If these raw materials are made available to the industry at prices which compare favourably to those ruling in other countries, it may be reasonably expected that the industry would be able to stand on its own legs and carry on successfully without protection. Subject to this limitation, therefore, we are satisfied that the second condition laid down by Government is also fulfilled by the industry.

24. Our recommendations are as follows :—

Recommendations.

(1) The present 30 per cent *ad valorem* revenue duty should be converted into a specific protective duty at an equivalent rate of Rs. 23 per cwt. on all imports of phosphoric acid. This duty should remain in force up to the 31st March 1949. If the c.i.f. price of any imported phosphoric acid falls below Rs. 70 per cwt., the rate of duty should be adjusted under section 4 (1) of the Indian Tariff Act, 1934, to safeguard the measure of protection recommended by us on the basis of the estimated fair selling price (paragraph 18).

(2) The present *ad valorem* revenue duty on sodium phosphates should be converted into a specific protective duty at the rate of Rs. 11 per cwt. on all imports of sodium phosphates. The duty should remain in force up to the 31st March 1949. If the c.i.f. price of any imports declines below Rs. 34 per cwt., we recommend that the rate of duty should be varied under section 4 (1) of the Indian Tariff Act, 1934, so as to maintain the measure of protection recommended by us on the basis of the fair selling price estimated by us (paragraph 19).

(3) A specific protective duty of Rs. 34 per cwt. should be imposed on all imports of acid calcium phosphate and should remain in force up to the 31st March 1949. Should the c.i.f. price fall below the present level, *i.e.*, Rs. 40 per cwt., section 4 (1) of the Indian Tariff Act, 1934, should be invoked to adjust the rate of duty so as to equalize the landed cost of imports to the fair selling price estimated by us (paragraph 20).

(4) Government should ensure that manufacturers of phosphoric acid and its sodium and calcium salts get sulphuric acid at a rate not exceeding Rs. 160 per ton. If it is not possible to enforce this arrangement, then the duties suggested by us should be so modified as to secure to the manufacturers of phosphoric acid and its salts the measure of protection recommended by us in the light of the prevailing price of the sulphuric acid (paragraph 14).

(5) Manufacturers of phosphoric acid and its salts should be given all facilities for obtaining reaction vessels of stainless steel and other plant and machinery to enable them to prepare these chemicals of commercial as well as pure B.P. quality (paragraph 11).

Acknowledgments.

25. The Board wishes to place on record its thanks to Dr. Madan, the Deputy Secretary, for his assistance throughout the inquiry and to Dr. J. N. Ray of the Department of Industries and Supplies for his helpful co-operation and advice during the stage of oral examination of the witnesses appearing before the Board.

SHANMUKHAM CHETTY,
President.

C. C. DESAI,
Member-Secretary.

NAZIR AHMAD,
Member.

H. L. DEY,
Member.

B. K. MADAN,
Deputy Secretary.

(CAMP) OOTACAMUND, *the 27th May* 1946.

APPENDIX I.

Resolution of the Government of India, Department of Commerce (Tariffs), No. 218-T (55)/45, dated, New Delhi, the 3rd November 1945.

In the statement on industrial policy issued by the Government of India on the 23rd April 1945, it was announced that, pending the formulation of a tariff policy appropriate to the post-war needs and conditions of the country and the establishment of permanent machinery for the purpose, Government would set up machinery for investigating claims from industries, which have been started or developed in wartime and which are established on sound lines, to assistance or protection during the transition period. A press communiqué issued on the same date invited industries to address their claims to the Secretary to the Government of India in the Department of Commerce.

2. Several industries have accordingly applied for assistance or protection, and on a preliminary examination of their claims, the Government of India have come to the conclusion that applications submitted by the following industries call for a detailed examination :—

(i) non-ferrous metals, including antimony ;
(ii) grinding wheels ;
(iii) caustic soda and bleaching powder ;
(iv) sodium thiosulphate, sodium sulphite anhydrous, sodium bisulphite ;
(v) phosphates and phosphoric acid ;
(vi) butter colour, aerated water powder colour ;
(vii) rubber manufactures ;
(viii) fire hose ;
(ix) wood screws ;
(x) steel hoops for baling.

Other applications are under the consideration of Government, and further action in their case will be taken in due course.

3. In addition to the industries which have applied for assistance or protection, there are certain industries the starting of which was considered essential by the Government of India under conditions created by the war. Early in 1940, Government announced that specified industries promoted with their direct encouragement during wartime might feel assured that, if they were conducted on sound business lines, they would, by such measures as Government might devise, be protected against unfair competition from outside India. In accordance with this decision, the following industries have been given an assurance of protection against unfair competition after the war :—

(i) bichromates ;
(ii) steel pipesand tubes up to a nominal bore of 4 inches ;
(iii) aluminium ;
(iv) calcium chloride ;
(v) calcium carbide ;
(vi) starch.

Of these industries, only those engaged in the manufacture of bichromates, calcium chloride and starch have so far applied for assistance or protection during the transition period. The Government of India consider that the applications submitted by these three industries also call for immediate investigation.

4. For the purpose of these and any subsequent investigations, the Government of India have decided to set up a Tariff Board for a period not exceeding two years, in the first instance. The Board will consist of—

PRESIDENT :

Sir R. K. Shunmukham Chetty, K.C.I.E.

MEMBERS :

Mr. C. C. Desai, C.I.E., I.C.S.

Prof. H. L. Dey, D.SC. (Lond.).

The Board will include one more Member whose name will be announced shortly. Mr. Desai will act as Secretary to the Board in addition to his duties as Member.

5. The Tariff Board is requested to undertake, in such order as it thinks fit, the investigation of claims put forward by the industries specified in paragraphs 2 and 3 above. In the case of each industry the Board will, after such examination as it considers necessary, report whether the industry satisfies the following conditions :—

(1) that it is established and conducted on sound business lines ; and

(2) (*a*) that, having regard to the natural or economic advantages enjoyed by the industry and its actual or probable costs, it is likely within a reasonable time to develop sufficiently to be able to carry on successfully without protection or State assistance ; or

(*b*) that it is an industry to which it is desirable in the national interest to grant protection or assistance and that the probable cost of such protection or assistance to the community is not excessive.

Where a claim to protection or assistance is found to be established, *i.e.*, if condition (1) and condition (2) (*a*) or (*b*) are satisfied, the Board will recommend—

(i) whether, at what rate and in respect of what articles, or class or description of articles, a protective duty should be imposed ;

(ii) what additional or alternative measures should be taken to protect or assist the industry ; and

(iii) for what period, not exceeding three years, the tariff or other measures recommended should remain in force.

In making its recommendations the Board will give due weight to the interests of the consumer in the light of the prevailing conditions and also consider how the recommendations affect industries using the articles in respect of which protection is to be granted. Since relief, to be effective, should be afforded without delay, the Board is requested to complete its enquiries with all possible expedition and to submit a report as soon as the investigation of the claim of each industry is concluded.

6. The headquarters of the Board will be at Bombay, but it will visit such other places as it thinks necessary for purposes of its enquiries. Firms and persons interested in any of these industries, or in industries dependent on the use of the products of these industries, who desire that their views should be considered, should address their representations to the Secretary to the Board.

7. Any claims hereafter received from other industries which in the opinion of the Government of India are suitable for examination by the Board will be referred to the Board in due course for examination.

8. The Government of India trust that Provincial Governments and Administrations will afford the Board all the assistance which it may require and will comply with any request for information which may be addressed to them by it.

N. R. PILLAI,
Secretary.

APPENDIX II.

List of firms to which questionnaire was sent.

Bengal—

(1) New India Chemical and Pharmaceutical Works, 95-1-C, Cossipore Road, Calcutta.

Bombay—

(2) Messrs. Dharamsee Morarjee Chemical Co., Ltd., Ambarnath near Kalyan.

(3) Eastern Chemical Co., Rowle Hill, Sion, Bombay.

(4) Sonawalla Industries, Ltd., Sonawalla Estate, Tardeo, Bombay.

(5) Star Chemicals, 21, Noble Chambers, Parsee Bazaar Street, Bombay.

Delhi—

(6) D.C.M. Chemical Works, P.O. Box 211, Delhi.

APPENDIX III.

List of firms which submitted representations.

(1) Star Chemicals, 21, Noble Chambers, Parsee Bazaar Street, Fort, Bombay.

(2) Corn Products (India), Limited, Post Box 994, Bombay.

APPENDIX IV.

List of witnesses examined and the dates on which they were examined.

Name.	Date.
Manufacturers—	
(1) Mr. R. B. Shah, representing Star Chemicals, Bombay.	28th February 1946.
(2) Dr. L. A. Bhatt, representing Bombay Chemical Manufacturers' Association, Bombay.	Do.
Consumers—	
(1) Mr. R. B. Makhanwalla, representing Messrs. J. Curtis & Co., Ltd., Bombay.	1st March 1946.
(2) Mr. G. G. Agashe, representing The Brihan Maharashtra Sugar Syndicate, Ltd., Poona.	Do.
(3) Mr. R. Hyam, representing General Motors (India), Limited, Bombay.	Do.
(4) Messrs. B. Peltier and Sardesh Pande, representing Corn Products (India), Limited, Bombay.	Do.

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REPORT

OF THE

Indian Tariff Board

ON THE

SODIUM AND POTASSIUM METABISULPHITES INDUSTRY

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PERSONNEL OF THE BOARD

SIR R. K. SHANMUKHAM CHETTY, K.C.I.E.—PRESIDENT.

MR. C. C. DESAI, C.I.E., I.C.S.—MEMBER-SECRETARY.

DR. NAZIR AHMAD, O.B.E.—MEMBER.

DR. H. L. DEY, D.Sc. (LOND.)—MEMBER.

RAI SAHIB S. C. AGGARWAL, B.A. (HON.), DIPL. MIN. ENG. (LEEDS), F.G.S. (LONDON)—DEPUTY SECRETARY.

PERSONNEL OF THE PANEL OF THE BOARD WHICH HEARD THIS CASE.

SIR R. K. SHANMUKHAM CHETTY, K.C.I.E.

MR. C. C. DESAI, C.I.E., I.C.S.

DR. H. L. DEY, D.Sc. (LOND.).

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SODIUM AND POTASSIUM METABISULPHITES INDUSTRY

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REPORT ON THE SODIUM AND POTASSIUM METABISULPHITES INDUSTRY

Reference to the Board.

1. The case of the Sodium and Potassium Metabisulphites Industry was referred to the Indian Tariff Board for investigation by the Commerce Department of the Government of India in their Resolution No. 218-T(55)/45, dated the 4th May 1946, read with paragraphs 2 and 7 of the Commerce Department Resolution No. 218-T(55)/45, dated the 3rd November 1945. The reference was made at the instance of the Bombay Province Chemical Manufacturers' Association who in its letter dated the 31st December 1945, asked Government to have the case of this industry considered by the Tariff Board. Ordinarily this inquiry would have been held by the Board along with the case of sodium thio-sulphate, sodium sulphite and sodium bi-sulphite—all these being photographic chemicals; but the Board had already completed investigation in, and reported on, the case of the other chemicals and had therefore to take up the case of sodium and potassium metabisulphites as a separate inquiry.

Terms of reference.

2. The terms of reference to the Board contained in the Resolution dated the 3rd November 1945 are as follows:—

"In the case of each industry, the Board will, after such examination as it considers necessary, report whether the industry satisfies the following conditions:

(1) that it is established and conducted on sound business lines; and

(2) (*a*) that, having regard to the natural or economic advantages enjoyed by the industry and its actual or probable costs, it is likely within a reasonable time to develop sufficiently to be able to carry on successfully without protection or State assistance; or

(*b*) that it is an industry to which it is desirable in the national interest to grant protection or assistance and that the probable cost of such protection or assistance to the community is not excessive. Where a claim to protection or assistance is found to be established, i.e., if condition (1) and condition (2) (*a*) or (*b*) are satisfied, the Board will recommend—

(*i*) whether, at what rate and in respect of what articles, or class or description of articles, a protective duty should be imposed;

(*ii*) what additional or alternative measures should be taken to protect or assist the industry; and

(*iii*) for what period, not exceeding three years, the tariff or other measures recommended should remain in force.

In making its recommendations the Board will give due weight to the interests of the consumer in the light of the prevailing conditions and also consider how the recommendations affect industries using the articles in respect of which protection is to be granted. Since relief, to be effective, should be afforded without delay, the Board is requested to complete its enquiries with all possible expedition and to submit a report as soon as the investigation of the claim of each industry is concluded."

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Method of inquiry.

3. On the 27th June 1946, the Board issued a press communique inviting associations, firms, or persons, including producers, importers and consumers, directly interested in this industry, or dependent upon it for their raw materials, who wished their views to be considered, to submit their representations. The Board also followed up the communique with a detailed questionnaire. A list of persons, associations or firms to whom the questionnaire was issued and from whom replies or memoranda were received will be found in Appendix I. The Liberty Chemical Works, Bombay, the only known producer of these chemicals, was visited by Mr. C. C. Desai on the 13th December 1946; the factory was also visited by the Deputy Secretary, Technical Adviser and Cost Accounts Officer attached to the Board. An attempt was made to work out the cost of production of the chemicals in question at the Liberty Chemical Works but had to be given up for want of adequate data as also owing to the absence of sustained and sizeable production. Oral evidence of the interests concerned was taken at Bombay on the 16th December 1946. A list of the witnesses examined is given in Appendix II.

History of the industry.

4. There was no production of these chemicals in India before the war, the country's requirements being met from imports. In July 1943, the Liberty Chemical Works, Ltd., Andheri, Bombay, started production of these chemicals along with the manufacture of sodium sulphide and a few other photographic chemicals. The capacity of the plant set up by the firm is stated to be 50 tons per annum. The actual quantity produced so far, however, amounts to approximately 2½ tons of potassium metabisulphite and only 2 cwt of sodium metabisulphite.

Process of manufacture.

5. Sodium or potassium metabisulphite is formed by the reaction of sulphur dioxide on the carbonate or hydroxide of the alkali concerned. The process consists in passing sulphur dioxide gas through potassium carbonate solution till a particular concentration is reached. The solution is then transferred to pans for getting crystallised potassium metabisulphite. The crystals are centrifuged, dried and packed. For successful production it is necessary to use vessels made of stainless steel; but, as this metal was not available in wartime, the factory had to resort to lead-lined porcelain vessels which served the purpose at the time but which did not conduce to efficiency and reasonable costs. The factory intends to scrap the present plant and install suitable equipment made of stainless steel vessels.

Uses.

6. Sodium and potassium metabisulphites are used as preservatives in the canning industry, particularly in the production of fruit beverages, such as, orange, lemon, and other squashes. These chemicals are also used in the photographic industry for hardening purposes and as a re-stainer in developing baths for positive films. It is the potassium metabisulphite which is most commonly used.

Domestic demand.

7. Separate statistics are not maintained for imports of sodium and potassium metabisulphites but it is estimated that before the war the annual imports amounted approximately to 3 or 4 tons which therefore represented the then Indian demand. During war, the consumption rose approximately to 15 tons per annum. As for the future, our estimate, based on consultation with the interests concerned, is that the country would require something like 20 tons per annum. The consumption should increase further with the development of the canning and fruit preserving industries, which we confidently expect if that industry is protected as recommended by us separately.

Domestic production.

8. The declared capacity of the Liberty Chemical Works is 50 tons per annum. But this capacity has never been attained as stated previously. It is clear, however, that if the Bombay factory works to capacity, it can meet the whole of the Indian demand and still have some surplus.

Quality of the indigenous product.

9. The actual production has been so small that it is not possible to make any reliable statement about the quality of the indigenous product. One consumer (Combined Kinematograph Service Central Depot, Sewri, Bombay) stated that the chemical was satisfactory but required improvement to reach the standard of the imported product. One of the canners, the Noon Farm Products Ltd., Bhalwal in the Punjab, stated that the quality of the Indian product was as good as that of the imported one. The Mildura Factory, in the Punjab, which is the biggest of the producers of fruit juices in India was not satisfied with the quality of the indigenous product. The factory itself, i.e., Liberty Chemical Works, complained that it could not market all its output owing to prejudice and unfair competition of the foreign importers, indicating that the consumers did not regard the indigenous article to be of the same quality as the imported chemical.

Cost of production.

10. The Liberty Chemical Works is the only producer of these chemicals and was the only concern represented at this inquiry. It is a small proprietary concern. The capital cost of the equipment required for the production of the two chemicals is said to be not exceeding Rs. 10,000 in all. For the period of twelve months, from May 1944 to April 1945, the factory produced only 2·5 tons of potassium metabisulphite and about 2 cwt. of sodium metabisulphite. Since then there has been practically no production. The factory had maintained no records from which accurate costs could be extracted. The Cost Accounts Officer and the Technical Adviser attached to the Board tried to get a dependable estimate of cost from the proprietor, but without success. In the absence of reliable data supported by recent production, it was not possible to construct a table of cost of production of either past or future manufacture. As the cost of production is the basis of the case for protection, the inquiry could not proceed further and had to be abandoned. The application for protection fails and should be rejected.

Competitive position of the industry.

11. Although the potassium and sodium metabisulphites industry is not qualified for protection on the ground that it is not at present an active industry and cannot therefore be said to be run on sound business lines, we collected in the course of our inquiry, data bearing on the general

competitive position of the industry in India. The cost of production of potassium metabisulphite of the Liberty Chemical Works was Rs. 1-10-9 per lb. in 1943-44 and is estimated at 14 annas in 1947, if production is restarted. According to an officer of the Department of Industries and Supplies, the estimated cost of manufacture of potassium metabisulphite should be not more than 11 annas per lb. excluding profits. If a sum of four annas is added as the price of one lb. bottle and profits are allowed at 10 per cent. of cost, the fair selling price of potassium metabisulphite would come to Rs. 1-1-0 at the most. On the other hand, the cost of importation is estimated at Rs. 0-15-8 made up as follows :—

	Rs. a. p.	
c. i. f.	0 12 2	per lb.
Duty	0 3 5	,, ,,
Clearing and landing charges ...	0 0 ½	,, ,,
Total ...	0 15 7½	,, ,,

i.e., Rs. 0-15-8.

It will be seen that the estimated cost of the Liberty Chemical Works for 1947 is below the landed cost of import from U. K. as also the estimate prepared by an officer of the Department of Industries and Supplies. The industry is thus one which can survive with the present duty, if satisfactorily conducted. The industry is in a favourable position in so far as raw materials are concerned. The raw materials are potassium carbonate which is produced locally in the United Provinces and the Punjab, and sulphur which comes from abroad in large quantities and which is imported by most of the countries manufacturing this chemical. The existing rate of duty is 24 per cent. *ad valorem* on sodium metabisulphite imported from the U. K. and the Colonies and 36 per cent. *ad valorem* standard—*vide* item No. 28 Customs Schedule. On potassium metabisulphite, however, it is 30 per cent. *ad valorem* standard—*vide* item No. 28 (8) of Customs Schedule.

Action recommended.

12. There is at present a ban on import of sodium and potassium metabisulphites on the ground that adequate capacity for the manufacture of these chemicals exists in the country. This restriction is adversely affecting the interests of consumers who cannot get the material either from local production or from imports. The position must be modified and imports should be thrown open so long as indigenous production is not well established. The producer could not satisfactorily explain why he could not manufacture the chemicals and put it on the market while there was still a total ban on the import of the chemical. One reason he gave was that although there was a total ban on import, one concern (important in the chemical trade) had imported a substantial quantity of the chemical on paying a certain amount of penalty which apparently did not make the import unremunerative or unbusiness-like. The smuggling of a prohibited article is not a matter falling within the purview of investigation by the Tariff Board. But as the matter was mentioned

in the course of the inquiry and as that appears to be a plausible explanation of the failure of the local producer of the chemical to market his product even when there was no import, we have considered it necessary to invite the attention of Government to it. In such cases a mere penalty may not be an adequate deterrent, and action should be taken against the smuggler, if the fact of smuggling is established, by depriving him of facilities for import of other articles. In any case the matter needs further investigation in the appropriate department of the Central Government. The Liberty Chemical Works has asked that this ban on import should be continued; but we find it difficult to endorse this request. A producer must be in actual production and must further be in a position to meet the requirements of consumers as regards both quantity and quality before his request for a ban on import could be considered. This condition is not satisfied in the present case, and we have, therefore, recommended that the imports of sodium and potassium metabisulphites should now be thrown open. This inquiry has impressed on us that for economical production, these two chemicals should be manufactured by a concern engaged in the production of other allied goods, such as sodium thiosulphate, sodium sulphite and sodium bisulphite. Government have recently passed orders declaring these to be protected industries, as a result of which it is expected that the industry concerned will be stabilised, providing an impetus to produce other allied chemicals, such as metabisulphites. When that position is obtained, a case may arise for the protection of the production of metabisulphites.

Summary of conclusions and recommendations.

13. Our conclusions and recommendations are summarised as under :—

(1) The prewar domestic demand of sodium and potassium metabisulphites ranged between three and four tons per annum while the future annual requirement of the chemicals is estimated at approximately 20 tons per annum (paragraph 7).

(2) The productive capacity of the one existing factory is sufficient to meet the requirements of the country (paragraph 8).

(3) The Board sees no reason why the quality of the indigenous product should be inferior to the imported product provided that proper care is taken in the manufacture (paragraph 9).

(4) The industry was not ready with facts and figures of the cost of production based either on sustained manufacture for a reasonable period or on a reasonable output, having stopped production more than a year ago (paragraph 10).

(5) The Liberty Chemical Works estimated its future cost of production of potassium metabisulphite at 15 annas per lb. (in 1947). If the present landed cost of 15 annas 8 pies of imported potassium metabisulphite is maintained during the next two years, the indigenous production will be just covered in cost. Hence, if and when the production is commenced on satisfactory lines, the industry should be able to survive with the present duty (paragraph 11).

(6) The industry does not fulfil the first condition for eligibility for protection, viz., it is not yet established on sound lines. Even with a total ban on import of the chemicals, the manufacturer has had to close down his factory. The Board recommends that this restriction on importation should be relaxed

and the chemicals placed under Open General Licence so that the consuming interests may not suffer. Economic production of the metabisulphites demands that they should be manufactured by a concern engaged in the production of other allied photographic chemicals, which have recently been declared by Government as protected industries (paragraphs 11 and 12).

Acknowledgments.

14. The thanks of the Board are due to Dr. J. N. Ray of the Department of Industries and Supplies for offering valuable advice, and to Messrs. Raghava Rao, Cost Accounts Officer, S. C. Aggarwal, Deputy Secretary, Rama Varma, Assistant Secretary, and S. D. Sunawala, Technical Adviser—all Officers of the Board—for helping in and supervising the preparation of the case.

(Signed) SHANMUKHAM CHETTY—President.

(,,) C. C. DESAI—Member-Secretary.

(,,) H. L. DEY—Member.

(Signed) S. C. AGGARWAL—Deputy Secretary.

Bombay, dated 25th January 1947.

APPENDIX I

List of persons, association or firms to whom the questionnaire was issued and from whom replies were received.

A. *Producers :—*

*1. Liberty Chemical Works, 205, Mangaldas Building, Bombay 2.

2. Cawnpore Chemical Works Ltd., Anwargunj, Cawnpore.

*3. Kesar Sugar Works Ltd., 45-47, Apollo St., Bombay.

4. Associated Chemicals, Bagadgunj, Itwari, Nagpur.

5. Shambunath & Sons, Ltd., Grand Trunk Road, Amritsar.

6. Meneklal Auxiliary Products, Examiner Press Building, Dalal Street, Fort, Bombay.

7. Kamani Metal Refinery and Metal Industries Ltd., Jaipur.

B. *Importers :—*

*1. I. C. I. (India) Ltd., 18, Strand Road, Calcutta.

2. Kanthavala Nanavathi & Co., Ltd., 16, Apollo Street, Fort, Bombay.

*3. Volkart Brothers, Graham Road, Ballard Estate, Bombay.

4. Kodak Limited, Kodak House, Hornby Road, Fort, Bombay.

5. Martin and Harris Ltd., Wallace Street, Fort, Bombay.

C. *Consumers :—*

*1. The Bombay Film Laboratories, 149, Portuguese Church Street, Dadar.

*2. Noon Farm Products Ltd., Bhalwal.

*3. The Commandant, C. K. S. Central Depot, Sewri, Bombay.

*4. The Standard Drugs Co., Grand Trunk Road, Amritsar.

5. The Department of Food (Div. III), Government of India, New Delhi.

D. *Associations :—*

1. Bombay Province Chemical Manufacturers' Association, 45-47, Apollo Street, Bombay.

2. Indian Chemical Manufacturers' Association, 102A, Clive Street, Calcutta.

*Indicates those from whom replies were received.

APPENDIX II.

List of witnesses examined on Monday the 16th December 1946.

Producers :—

1.	Mr. P. V. Paranjpe	... Representing Dharamsi Morarji Chemical Co., AMBERNATH.
2.	Mr. Purshotamdas Popatlal	... Representing the Pioneer Chromate Works, Ltd., BOMBAY.
3.	Mr. K. M. Patel	... Representing Liberty Chemical Works, BOMBAY.

Importers :—

1.	Mr. A. R. Leydon	... Representing Allied Photographics Ltd., Bombay, who have since taken over business from Messrs. Martin and Harris Limited, BOMBAY.

Consumers :—

1.	Mr. Prabhu V. Mehta	... Representing Calico Dyeing and Printing Works, BOMBAY.

Association :—

1.	Dr. L. A. Bhatt	... Representing Bombay Province Chemical Manufacturers' Association, Bombay, and Indian Chemical Manufacturers' Association, CALCUTTA.

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GOVERNMENT OF INDIA

DEPARTMENT OF COMMERCE

REPORT OF THE INDIAN TARIFF BOARD

ON THE CONTINUANCE OF PROTECTION TO THE PAPER AND PAPER PULP INDUSTRIES

BOMBAY 1947

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REPORT ON THE CONTINUANCE OF PROTECTION TO THE PAPER AND PAPER PULP INDUSTRIES.

Reference to the Board.

1. The Government of India, Department of Commerce, in their letter No. 134-T(36)/46, dated the 19th December, 1946 (Appendix I), pointed out that the period for which protection had been granted to certain old established industries, including the paper and wood pulp industries, was due to expire on the 31st March, 1947, and requested the Tariff Board to investigate the claims of these industries to continued enjoyment of protection at the existing, or a reduced or enhanced scale. Government referred in their letter to the continuance of the economic uncertainties which had made it impossible to conduct such an inquiry during wartime and asked the Board to evaluate, in a summary manner, the necessity or otherwise of continuing the existing measures of protection beyond the 31st March, 1947. In making its recommendations, the Board was asked to bear in mind the interests of both the manufacturers and the consumers. Government desired the considered opinion of the Board by the end of January 1947, as a decision must be taken well before the commencement of the budget session in order to enable them to introduce the necessary legislative measure in time, and, therefore, suggested that the Board might have a summary discussion with the representatives of the industries and other interested parties. The reference was subsequently confirmed in the Commerce Department Resolution No. 28-T(6)/46, dated the 20th January, 1947 (Appendix II).

Method of Inquiry.

2. As the time at the disposal of the Board was not much more than a month and it was impossible to hold a detailed inquiry involving determination of costs of production and landed costs of imports for equation of domestic and foreign prices, we decided to compile such data as could be easily gathered from Government publications and records and to discuss with the representatives of the industry and other interested parties as to what should be done when the existing protective duties expired on the 31st March, 1947. The Board decided to invite (*a*) representatives of the two principal associations of paper producers in the country, (*b*) a few prominent importers and merchants, (*c*) a representative of labour, and (*d*) certain other individuals having intimate knowledge of the industry to a joint conference for discussion of the principal issues. A list of the associations and persons to whom invitations for the conference were issued will be found in Appendix III. The associations were also asked to submit their views a few days before the conference was due to meet. All the associations to whom the request was addressed were good enough to comply with it. The conference was held in the office of the Board in Bombay on the 5th of February, 1947. A list of the persons who attended the conference is given in Appendix IV.

Review of the proceedings of the Conference.

3. The Board explained to the conference the purpose for which the meeting had been convened. It was pointed out that the paper and wood pulp industries had been protected since 1925 when the Bamboo Paper Industry (Protection) Act was passed. Since then there have been two main tariff inquiries into the case of this industry in 1931 and 1937. In between, there were two special inquiries in 1927 and 1935. The protective duties which were levied as a result of the last tariff inquiry were due to expire in 1942, but owing to the intervention of the war in the meantime, these protective duties have been continued without any inquiry by Continuation Acts from time to time. The last extension was agreed to by the Legislature in April 1946 for a period of one year, and an undertaking was given by Government that, meanwhile, the case of the industry would be examined and government would decide as to what should be done in respect of this and other major industries. The proceedings of the Legislative Assembly leading to the grant of the extension were explained to the conference with a view to indicating the context in which the extension had been agreed to and the justification that would be demanded in the event of Government proposing further extension in respect of the expiring protective duties. It was pointed out that the principal criticism against the continuation was that these industries had grown up under the shelter of protection for a sufficiently long time—in this case 22 years—to enable them to stand on their own feet and were now placed in a particularly strong position as competition from abroad was practically non-existent. Some members of the Assembly had remarked that in extending protection, Government had been rather lenient to the producers and indifferent to certain other equally vital interests, such as, consumers, workers and cottage industry. Another point urged in the debate was that protection should ordinarily be regarded as a temporary expedient intended to enable a struggling or distressed industry to overcome foreign competition either in the initial stages or during depression. The Board regretted that the time given to the industry to prepare its case was short, but, nevertheless, it had enough time to point out whether competition existed and to what extent. While inviting the industry to state its case, the Board asked it to keep in view certain salient features mentioned below. Firstly, the indigenous, production, though stepped up with the aid of protection and under the stimulus of wartime, conditions, was very short of the total requirements of the country. Secondly, there is the overall world shortage of paper and pulp, making import of any substantial quantity of these products into this country from abroad a remote possibility. Thirdly, it would be pertinent to ask whether, if the industry was not in a position to dispense with protection to-day, it was ever likely to dispense with protection and whether it was possible to envisage more favourable circumstances for the withdrawal of protection. The industry was asked to remember that it had enjoyed protection for 22 years, that it had the benefit of exceptional prosperity in wartime for over seven years, that it was regarded by the country as a major industry having a direct bearing on the spread of literacy and propagation of knowledge, and that if such an industry required protection at a time when there was no foreign competition, when the Government could be relied upon to do everything in its power to protect the major industries of the

country, it would amount to a case of a demand for perpetual protection.

Burden of proof that protection is necessary rests on the industry.

4. The industry was asked to bear in mind that, if it asked for continuance of protection, the burden of proving that protection was necessary under the conditions of to-day rested heavily on the industry. It was pointed out that protection had to be justified broadly on the following principles : (*i*) that there exists competition from which the indigenous industry requires protection ; (*ii*) that the protection required is of a temporary duration and would be dispensed with within a reasonable period ; (*iii*) that the cost to the consumer arising from protection is not excessive ; and (*iv*) that the industry is run on sound business lines. The eligibility of the industry for protection was of course not in doubt or disputed, it being an industry of sufficient national importance.

Importance of the interest of consumers.

5. The other point stressed by the Board was the importance to be attached to the interests and requirements of the consumer. The industry was requested particularly to consider what should be done to increase the supplies of paper and how paper prices could be reduced, thus affording the much-needed relief to the consumer, by any adjustment of duty or modification in the nature of protection. The Board was not concerned with the general and wider question of paper prices which was outside the scope of this inquiry, but it would like to examine if some relief to the consumer could be given by a readjustment in the scheme of protection. It was mentioned that the consumers' point of view in this connection was that, if the industry was de-protected, more imports from abroad might come, the imports might be sold at lower prices, and the lower prices of the imports might induce indigenous producers to revise their price policy and to reduce their prices in order to maintain the goodwill of customers. It was agreed that the world paper position was still tight and that imports would be determined more by the exportable surpluses in the main producing countries than by the level of duties in this country, but even so it was arguable that a small stream of imports at favourable prices might have a salutary or chastening effect on the home industry.

Written replies of the producers.

6. The Board informed the conference that the associations of producers which had been addressed to give their views on the points at issue were unanimous in demanding continuance of protection, though agreeing that there was no foreign competition at present and that the protective duties were practically ineffective. The industry, however, could not tell when competition might overtake it and when certain important pulp and paper producing countries like Norway, Sweden, Canada, United Kingdom, and United States of America might, in their anxiety to develop their export trade, invade the Indian market to the detriment of the home industry. They referred to the existence of abnormal conditions which made it difficult even to forecast what the competition would be like in the distant or even near future. They, therefore, pleaded that until it was possible to obtain a clearer picture of the post-war pattern of the paper industry in the world, it would be unwise to disturb the *status quo* or to take any decision from which it might be difficult to

resile at a later stage. The associations pointed out that the paper industry had benefitted substantially as a result of the protective policy of Government and that, as further expansion was still necessary and was being actively considered by both Government, and the industry, the shelter of protection should not be removed. In the end, the associations said that a period of two years would be required before a proper appraisement could be made of the future prospects of the industry and that, therefore, the *status quo* should be maintained during that period towards the end of which an enquiry might be undertaken to determine the future course of action. As for adjustment in the duties, the view of the associations was that there should be no change in the protected items and that even the unprotected items might now be brought within the purview of protection in view of the great development that has taken place in their production since the last tariff inquiry of 1938.

Alternative solutions for consideration.

7. Having placed before the conference arguments for and against the continuance of protection as they were presented by the different interests, the Board pointed out that there were the following three alternatives, or a suitable combination of some of these alternatives, as possible solutions of the problem now before it and the conference. The alternatives were : (1) maintaining the present protection for a further period of one year ending March 31, 1948, and having a tariff inquiry into the industry in the latter half of 1947 ; (2) continuing the present protection for a period of one year, but keeping the protective duties in abeyance, partially or wholly, on some or all varieties of imported pulp and paper, through an executive order under the Sea Customs Act or the Indian Tariff Act, subject to institution of a tariff inquiry in the latter half of 1947, to determine the measure of protection, if any, required for the industry as a permanent measure ; and (3) holding that the industry had failed to make out a case for, and was not in need of, continuance of protection, which should, therefore, be terminated when the protective duties expire on March 31, 1947, leaving it to Government to impose such revenue duties as may be decided upon purely on budgetary considerations.

Industry's case for protection.

8. Mr. S. P. Jain, President of the Indian Paper Mills Association, presented the case on behalf of the paper industry as a whole. He re-affirmed what both his Association and the Indian Papermakers' Association had stated in their written replies and contended that the present was not an opportune time for finally determining such an important matter as continuance or termination of the present policy of protection to the Indian paper industry, which had been pursued by Government for over 22 years and which had been supported by a large number of tariff inquiries from time to time between 1925 and 1938. He admitted that protection at present conferred no benefit on the industry, but he argued that it also did no harm to the consumers. In the circumstances, he asked why the *status quo* should be disturbed. This plea was reinforced by Mr. Sim on behalf of the Indian Papermakers' Association and by Mr. Sinha, speaking on behalf of certain mills affiliated to the Indian Paper Mills Association. Their contention was that the burden of proof that protection was unnecessary rested on those who ques-

tioned the desirability of its continuance, but this plea could not be accepted by the Board, which pointed out that in normal circumstances, the present scheme of protection would expire on March 31, 1947, but that if it was required to be continued, the party asking for its continuance must prove the need for it. The burden of proof could not thus be shifted from the producers to other interests. Mr. Ganapati Iyer, speaking on behalf of the Mysore Paper Mills, read out extracts indicating that serious efforts were being made in Canada to increase the volume of exports of paper of which India would be well advised to take due note. He also felt that America might in the near future be in a position to offer competition to the Indian industry. As for pulp, the industry agreed that the policy of imposing a protective duty on wood pulp had fully justified itself and that the Indian bamboo pulp industry had been sufficiently developed and established to dispense with any further protection. In fact, the industry would welcome imports of wood pulp with a view to increasing the production of paper in the country. The present position, according to the industry, was that the paper making capacity was somewhat in excess of the pulp making capacity, with the result that, unless the amount of pulp available in the country was supplemented by imports, production of paper could not attain maximum capacity. Mr. Jain, on behalf of the Indian Paper Mills Association, wrote to the Board after the conference that both his Association and the Indian Papermakers Association would be agreeable to de-protection of wood pulp, and would further desire that the revenue duties, which might be imposed on wood pulp, should be kept as low as possible in order that import of wood pulp might be encouraged. The industry was certain that this step would have no detrimental effect on the Indian bamboo or grass pulp industry. In regard to both the volume of production and the cost of production, the pulp industry in India had nothing to fear from competition from abroad. As for the unprotected varieties, the industry suggested that the distinction between unprotected and protected varieties should now be abolished and that all varieties of paper should be brought under the protective part of the tariff schedule. The representatives of the industry also referred to the possible adverse effect which any announcement of termination of protection might have on the future expansion of the industry as likely investors might feel that the industry in future would be an unprotected one. The industry had vast schemes of expansion, so necessary to bridge the gap between demand and production in the country, and they would receive a setback by any hasty or unwise declaration of termination of protection of which the real significance might not be quite appreciated by the large body of people. Lastly, the industry asked the Board and Government to bear in mind the fact that important trade and tariff negotiations at an international level were pending at present, the full effect of which should be seen before tinkering with the protection of a major industry like the pulp and paper industry. The industry could not say exactly when the abnormal conditions at present prevailing would be over and when it would be appropriate to hold a full-fledged tariff inquiry with a view to deciding finally whether or not the industry needed protection. In any case, the industry would like the matter to be reviewed towards the end of 1948. The industry preferred the first of the three alternatives put before it. The industry was also asked if its purpose would be met by Government giving a categorical assurance

of protection to it if and when it was threatened by competition from abroad, such an assurance carrying a definite obligation on the part of Government to order a tariff inquiry on a request being made by the industry and an undertaking to consider the report of the Board as expeditiously as possible. The industry's reply was that it would prefer maintenance of *status quo* to de-protection at this stage though coupled with an assurance of protection on the lines indicated above.

Other interests. (i) Importers

9. The view of the importers was that there was a tremendous shortage of paper in the country, that it was not possible to get any substantial quantity of paper from abroad and that termination of protection or reduction in the scale of duties leviable on these goods would not have much effect on the inflow of imports from abroad. They were, therefore, not urging the discontinuance of protection although they felt that the case for continuance was very weak. One importer pointed out that there was such a disparity between the scale of revenue duties applicable to unprotected varieties of paper and the scale of protective duties applicable to the protected varieties that, in actual practice, the unprotected varieties were more protected than the protected varieties ! This reasoning is correct as will be seen from a comparative study of the protective and revenue duties leviable on the protected and unprotected varieties of paper (*vide* Appendix V). The anomaly has presumably arisen from the fact that, firstly, revenue duties have been raised considerably since the Protection Act was passed in 1939 and secondly, revenue duties in this case are levied *ad valorem* whereas some of the protective duties are specific and a substantial increase in the prices of paper has naturally resulted in the *ad valorem* duties working out heavier in incidence than those particular protective duties. We shall have occasion to refer to this anomaly later when we come to our recommendations in this case. Some importers would like an exception to be made, in the matter of import restriction, in the case of kraft paper which, it was urged, was not being manufactured in the country to the correct specifications. It was mentioned that the kraft paper was made by only one mill in India and that it was of lower quality and could not, therefore, be a substitute for the kraft paper required by most of the consumers.

(ii) Labour point of view.

10. Mr. Somnath P. Dave of Ahmedabad, speaking on behalf of labour interested in the paper industry, said that as the industry was in urgent need of expansion, it should not be deprived of enjoyment of protection, but that for the present, when the imports were badly needed to supplement local supplies, the protective duties might be kept in abeyance. He also urged that, while granting protection, Government should see that the industry gave the workers a fair deal in regard to wages and conditions of work. He complained that recently, simultaneously with the reduction in the hours of work, the paper mill of which he has experience, had reduced the wages *pro rata*, but this point was disputed by the other producers present at the conference in so far as their units were concerned.

11. Mr. Ratanlal, editor of the Bombay Law Reporter, who was one of the invitees on behalf of consumers, urged that so long as the industry was in need of expansion, protection should not be withdrawn, as otherwise, the public might lose confidence in the ability of the industry to stand on its own legs and might not come forward with the capital necessary to finance the new projects. He pleaded for stricter control on the distribution and prices of paper, but would not advise any disturbance of the existing measures of protection.

(iii) Consumer's point of view.

12. Mr. Narasimiengar, who was the Chairman of the Panel on Paper Pulp, Board and Chemical Cotton Industries appointed by the Planning and Development Department, said that his Panel had also considered the question of protection to the paper industry and had come to the conclusion that, while foreign competition in the industry was practically non-existent at the present moment owing to unsettled conditions in foreign countries and shipping difficulties, protection to the paper industry would be necessary to safeguard it against keen foreign competition in the post-war period. The Panel was further of the opinion that the scope of protection afforded to the industry should be extended so as to include varieties of paper and boards that remained unprotected at present. The Panel had recommended that the degree and form of protection for different classes of paper and boards should be reviewed by the Tariff Board at an early date. This measure was recommended not only to create confidence in the minds of the existing millowners, but also in order to provide an incentive for the prospective industrialists who wished to set up new paper mills. In the course of further discussion, Mr. Narasimiengar agreed that in the Panel they looked at the question of protection from a different point of view, but that now in the light of these discussions with the Board, he at any rate would revise his opinion and say that termination of protection with an assurance of re-imposition of a suitable scheme of protection, should necessity for such action arise in future, would be a better proposition for the industry than extension of protection from year to year without any indication as to what might be done by way of a permanent measure. Such action would also, in his opinion, accord with the fact that the industry as it stood today had no competition to be afraid of and was not in need of protection.

(iv) Paper Panel's recommendations.

13. The last Tariff Board inquiry was held in 1938. The report submitted by that Board gives the progress of the industry up to 1936-37. We are giving here some facts and figures to show the progress made by the industry

Progress of the Indian paper industry.

since then. The number of mills increased from 9 in 1936-37 to 16 in 1944, *vide* table below :—

Table showing paper mills in 1944 with their capacity and actual production in one year (1944).

Name of Mill.	Location.	Average annual productive capacity.	Actual output in 1944.
		Tons.	Tons.
1. Titaghur Paper Mills	Titaghur	31,000	31,012·9
2. Titaghur Paper Mills	Kankinara		
3. Bengal Paper Mills	Raniganj-Burdwan	11,000	11,960·6
4. Indian Paper Pulp	Halishahar-Naihati	8,000	8,403·2
5. Shree Gopal Paper Mills	Jagadhri, N. W. R.	8,000	8,548·5
6. Star Paper Mills	Saharanpur	3,600	3,493·3
7. Upper India Couper Paper Mills	Lucknow	3,000	3,329·4
8. Mysore Paper Mills	Bhadravati-Mysore State	4,000	2,470·4
9. Deccan Paper Mills	Bhowani Peth-Poona	3,000	2,850·0
10. Gujrat Paper Mills	Ahmedabad	1,200	1,254·0
11. Andhra Paper Mills	Rajamundry—(Madras)	2,500	1,556·3
12. Sirpur Paper Mills	Sirpur-(Hyderabad State)	5,000	4,471·4
13. Punalur Paper Mills	Punalur (Travancore State)	3,500	3,524·9
14. *Pudumjee Paper Mills	Bombay	..	153·4
15. Orient Paper Mills	Sambalpore—Dist Orissa	10,000	10,983·2
16. Rohtas Industries	Dalmianagar—Bihar	10,000	9,772·3
	Total	103,800	103,783·8

NOTE.—The average annual productive capacity of the mills is based on the working conditions of each factory, in the year 1944. Since then, however, paper mills are not running to the extent that they did during the war period when the maximum possible production was aimed at to assist in the war effort. Moreover, since August 1946, working hours have been reduced from 9 to 8. Adjusting the figures for the change in working conditions, it can be assumed that the effective production of Indian paper mills will not be higher than 85,000 tons per year.

* This mill was owned by Deccan Paper Mills but was sold on 23-10-1944 and is now operated as a separate concern. Production given is only for two months November and December. Production for the period January/October inclusive is included under Deccan. No separate annual productive capacity is given, since this is included under Deccan.

The number of workers employed in all paper factories increased from 7,037 in 1936-37 to 17,629 in 1945, that is by 150·5 per cent. The development in the production of protected and unprotected varieties of paper is given in appendix VI. The total production of paper and board (protected and unprotected) increased from 48,531 tons in 1936-37 to 59,198 tons in 1938-39 (*i.e.* by 22·0 per cent.) and to 97,402 tons in 1945-46 (*i.e.* by 100·7 per cent.). The most significant factor in this development is the rapid rise in the produc-

tion by Indian mills of unprotected varieties. While the production of protected varieties increased from 43,365 tons in 1936-37 to 51,933 tons in 1938-39 (*i.e.* by 19·8 per cent.) and to 58,851 tons in 1945-46 (*i.e.* by 35·7 per cent), that of unprotected varieties increased from 5,176 tons in 1936-37 to 7,265 tons in 1938-39 (*i.e.* by 40·3 per cent.) and to 28,551 tons in 1945-46 (*i.e.* by 451·6 per cent.) The production of protected varieties throughout the war period was maintained at a steady average of 64,000 tons, while the production of unprotected varieties rose from 7,265 tons in 1938-39 to 36,932 tons in 1944-45 (*i.e.* by 408·3 per cent.) It will also be seen that the maximum production of protected varieties was recorded in the year 1940-41 and of unprotected varieties in the year 1944-45, the respective figures being 65,608 tons and 36,392 tons. The total production of all protected and unprotected varieties reached the figure of 100,052 tons in the year 1944-45. Only provisional figures of production for the first eight months (April—November) of 1946 are available. They show that the total quantities of protected and unprotected varieties produced in India amounted to 33,304 and 20,108 tons respectively. The fall in production is due partly to the reduction in the hours of work from 9 to 8 per shift since August 1946, partly to disturbed conditions in the country, and partly to some mills now not working to the maximum extent as they were doing during the war period, when the maximum possible production, regardless of wear and tear or the carrying out of necessary repairs and replacement, was aimed at as a measure of war effort. The industry was asked to explain the relatively greater rise in the production of unprotected varieties as compared with the protected varieties, regard being had to the fact that the output of protected varieties was still considerably short of the requirements of the country, but no satisfactory explanation was forthcoming except to say that one or two mills were specialising in the production of unprotected varieties. In any case, it was clear that the present revenue duties on unprotected varieties were affording them sufficient protection and that application of a regular scheme of protection to these varieties was hardly called for. The producers at the conference stated that they have been paying considerable attention to bringing their pulp and beating processes up to date, thus resulting in an all-round improvement in the quality of Indian made paper. The Controller of Printing and Stationery, however, stated at the conference that he had evidence to show that some Indian-made paper had deteriorated in quality, but the contention of the producers was that they were steadily improving their quality, that their quality was as good as that of imported paper, and that any defect that might have been noticed was due to the unavailability of the proper quality of chemicals rather than to a flaw in the paper making process. Most of the mills have improved their pulp making plants and some of them are at present manufacturing their own requirements of caustic soda and chlorine. Production of kraft paper has been undertaken by one mill, although, as pointed out previously, the quality of this paper is in dispute. Special types of paper, such as blotting paper, bank paper, etc., are also being successfully manufactured by Indian mills. It is significant to observe that this development has taken place despite the fact that imports of wood pulp have been appreciably curtailed during the war showing that bamboo pulp,

properly prepared, is suitable for the manufacture of a large range of paper products. The decline in the imports of wood pulp will be seen from the table given below :—

Volume of imports of wood pulp into India since 1936-37.

Year.	Total quantity. Tons.	Total value. Lakhs of Rupees.
1936-37	11,047	14·56
1937-38	10,717	17·17
1938-39	13,843	25·89
1939-40	11,714	21·84
1940-41	4,443	12·30
1941-42	2,916	10·67
1942-43	623	2·51
1943-44	702	3·78
1944-45	[illegible]	33·68
1945-46	5,054	23·88

The decline in the import of wood pulp has been more than made up by increased use of raw mateials locally available in the country, as will be seen from the table given below —

Raw materials.	1936-37. Tons.	1944-45. Tons.
Bamboo	19,281 (Pulp)	1,87,000 (bamboo) 62,300 (in pulp)
Sabai grass	11,510 (Pulp)	69,086 (sabai Grass) 20,000 (in pulp)
Waste paper	5,999	17,400
Old rags, cloth cutting, hemp rope, etc.	[illegible]	27,328
Imported wood pulp	10,[illegible]78	7,200

It will be seen from the above analysis that India is advantageously placed with regard to the basic raw materials used for paper manufacture. Bamboo, which is to be found in abundance, has become the principal raw material for paper manufacture in India, sabai grass being still the chief raw material in certain areas like U.P., and the Punjab, and the pulp made from both bamboo and sabai grass can hold its own against imported wood pulp, the fall in the import of which did not hold up the progress of the local paper industry. The industry thus enjoys natural advantages in regard to raw materials and has a vast and expanding market to cater for. It made remarkable progress in war time and there is great scope for further expansion in the post-war period.

The world supply position of paper.

14. In any consideration of a case for protection, the existence of foreign competition and the possibility of imports are the most relevant issues. To understand these factors it is necessary to know what the position of the industry in the world as a whole is. Before the war, the principal manufacturers of

paper were U.K., Germany, Italy, Norway, Sweden, Finland, Holland, Czechoslovakia, Japan, U.S.A. and Canada. Of these Germany, Holland, and Japan may be left out of consideration at the present time, as these countries are not likely, owing to the severe damage suffered by them in the course of the war, to compete with the Indian industry in the near future. New competitors have, however, since appeared, notably Newfoundland which is reported to have vast schemes for the manufacture of paper. The present position can be summed up by saying that, while the world's manufacturing capacity in paper has been seriously impaired as a result of the war, the aggregate requirements of the world to day are definitely much more than in pre-war years. Within India itself, owing to the imposition of control and the necessity of meeting, during the war period, the entire defence service requirements from indigenous production, the quantity of paper actually made available for essential civil requirements was at one time drastically reduced, amounting to approximately 30 per cent. of the total production of Indian mills. The quota has since been raised to about 70 per cent. of the total Indian production. This compulsory under-consumption has left behind some backlog which remains to be satisfied. The same state of affairs exists more or less in other countries also. The establishment of new paper mills and the rehabilitation of worn-out units may take anything from two to three years owing to the difficulty of manufacturing, supplying, and installing paper mill machinery. In the meantime, therefore, the Indian mills will be kept busy, having nothing to fear from imports. We may now take the different paper producing countries one by one and rapidly examine the possibility of their becoming, a serious competitor to India :—

(*i*) *United Kingdom.*—In so far as the United Kingdom is concerned, it has not yet achieved its pre-war production, and its *per capita* consumption at present is also lower as compared with the pre-war period. Although in recent months exports of paper from the United Kingdom have shown an upward tendency and imports into India from the United Kingdom have actually recorded an improvement, it cannot be expected that any appreciable increase in these supplies will be possible in the near future.

(*ii*) *Norway.*—In so far so as Norway is concerned, its productive capacity at present is said to be only 40 per cent. of its pre-war capacity. The demands for Norwegian paper are reported to be so heavy that supplies coming to India are not likely to assume any large volume.

(*iii*) *Sweden.*—Sweden is a hard currency area and exchange difficulties prevent any large scale importation from that country. Besides, Sweden has got trade agreements with the United Kingdom, France, and some other European countries, and the quota allotted to India is negligible.

(*iv*) *Finland.*—Finland is one of the countries which has a surplus capacity to supply to the rest of the world. Its home consumption comes to only 10 per cent. of its total production ; but it must be remembered that Finland is at present under the sway of Russia and is hardly in a position to send its surplus production to other countries.

(*v*) *Czechoslovakia.*—Czechoslovakia has not yet come back to its pre-war

capacity. The prices of Czechoslovakian paper are also high as compared with the prices of similar varieties manufactured in other countries, with the result that it is not likely to offer competition in India.

(*vi*) *U.S.A.*—As far as U.S.A. is concerned, the productive capacity has not been increased during the war. The production is said to be hardly sufficient for the domestic needs of America. As a matter of fact, America itself is importing at present substantial quantities of paper from Canada.

(*vii*) *Canada.*—Canada has increased its production during the war by 2 million tons as compared with the pre-war figure. Due to acute world shortage of paper and the necessity of Canada having to supply the requirements of U.S.A., how far it can divert its surplus to India is problematical.

The above survey which was discussed at the confernce shows that on the whole the Indian paper industry has little to fear from any serious competition from abroad at least for some time to come and that the apprehension of dumping by other countries is based more on diffidence and nervousness than on solid verifiable data.

Import trade in paper.

15. Appendix VII gives details of imports separately for protected and unprotected varieties of paper (inclusive of boards, but exclusive of old newspapers, other kinds of paper, and newsprint). Appendix VIII gives details of the imports into India of old newspapers, other kinds of paper, and newsprint.

It will be seen from these figures that, while the imports of protected varieties have reached in 1945-46 a figure which is almost equal to the pre-war imports, the imports of unprotected varieties have declined from 57,312 tons in 1938-39 to 12,188 tons in 1945-46. During the war, the position with regard to newsprint has been very serious ; the imports of newsprint decreased from 43,246 tons in 1937-38 to 11,237 tons in 1942-43. Besides increased newspaper requirements, Government consumed a substantial quantity for their publicity work, with the result that there was an acute shortage of newsprint for civil requirements. Before the war, India was annually consuming on an average 38,000 tons of newsprint, which came mainly from Sweden, Norway, Canada, and U.K. No newsprint has ever been manufactured in India. The total imports of protected and unprotected varieties of paper for the five months April-August 1946 amounted to 8,133 and 9,568 tons, respectively ; and of newsprint 8,830 tons. Assuming that the imports will be maintained at the levels indicated by the imports in the five months April-August 1946, it is estimated that the total imports of all kinds of paper (including newsprint, old newspapers, and other kinds of paper) would not exceed 67,800 tons—which is roughly 41 per cent. of the average imports of all kinds of paper in the three years preceding the war. Excluding newsprinting paper, old news-papers and other kinds of papers, the total imports of protected and unprotected paper would not exceed 45,000 tons for the year which is roughly 58 per cent. of the average imports of such paper in the three years preceding the war. The Controller of Printing and Stationery said at the conference that he was trying hard to obtain 2,000 tons of protected varieties of paper from abroad but that he had

not yet succeeded, indicating thereby the difficulty of getting imports from abroad. The same experience was confirmed by representatives of importers present at the conference. The Panel on Paper, Pulp, Board, and Chemical Cotton Industries has also come to the same conclusion. In paragraph 61 of its report, the Panel says that, owing to unsettled conditions in foreign countries and shipping difficulties, foreign competition in the paper industry is practically non-existent at the present time. The Panel, however, points out that, when normal conditions revert and peacetime production abroad is well advanced, foreign countries—particulary U.K., Norway and Sweden-might endeavour to capture their pre-war export markets, including India.

Comparison of prices of imported and indigenous paper.

16. Even if it were shown that there is a real threat of import of paper from abroad, the industry could not have made out a case for protection unless it was shown at the same time that the prices of imported paper were lower than the prices of comparable paper made in the country. It is not possible to make any detailed comparison between prices of imported and indigenous paper so as to be of any great value, for the reason that the quality of the imported paper is in very many cases different from that of the indigenous product and also that the c.i.f. quotations of the same quality of imported paper fluctuate within very wide limits. Even so, whatever information is available points to the conclusion that the indigenous products have nothing to fear from imported goods even in the matter of prices. Two large import firms importing paper into this country in substantial quantities have stated that the current c.i.f. quotation for imported printing and writing paper are £105 and £110 per ton, respectively which are equivalent to 10 annas and 10 annas 6 pies per lb. The current selling prices fixed for the Indian paper of quality comparable with the above imported paper are in both cases 7 annas 5 pies per lb. It will be seen, therefore, that the Indian price is 74·2 and 70·6 per cent. of the prices of imported paper (exclusive of duty). Similar figures for unprotected varieties are, however, not available, but a representative of one importing firm stated that in some cases the c.i.f. prices of imported unprotected items were more than double of those of comparable Indian unprotected varieties. In the absence of correct figures, we are unable to substantiate this statement, but in view of the significant development by the Indian industry in the production of unprotected varieties, we are led to conclude that prices of indigenous unprotected varieties are favourable as compared with those of the imported ones. The current c.i.f. price of wood pulp as given by the Collector of Customs, Bombay, is Rs. 510/- to Rs. 520/- per ton. At the conference the representatives of the industry, when asked to indicate the present price of Indian bamboo or grass pulp used by them in the manufacture of paper, were not inclined to disclose the exact figure, but stated that, even if it were possible to import wood pulp into India at something like Rs. 300 per ton, the indigenous bamboo or grass pulp industry would be in a position to compete effectively with such imported wood pulp. It will be safe to conclude, therefore, that there is now little prospect of the foreign products being put on the Indian market in appreciable quantities in competition with the indigenous industry.

Insufficiency of Indian production.

17. The *per capita* consumption of paper in India was only 1 lb. in 1939, as compared with 152 lbs. in U.K. and 174·4 lbs. in U.S.A. in 1935 and 174·7 lbs. in Canada in 1937. At present, the consumption of paper is highest in U.S.A., the *per capita* consumption being 300 lbs. in 1941. The low consumption of paper in India in the past can largely be attributed to the poor literacy standard, but this position may be expected to change materially in the near future. The Paper Panel, which went into the question of Indian requirements in great detail, has estimated that our annual consumption (inclusive of newsprint) may be expected to be 280,000 tons in 1951 and 422,000 tons in 1956 and has suggested plans for increasing Indian production to meet this demand. The effective productive capacity of the existing paper mills in India is estimated at 85,000 tons; actually in 1946-47 the prodution is not expected to be over 80,000 tons. Excluding newsprint for which the demand is expected to be about 60,000 tons, the entire quantity of which will have to be imported until its manufacture is established in India, the total quantity of other kinds of paper which Indian mills will have to produce to meet the anticipated annual consumption will be 220,000 tons in 1951. The pre-war average consumption of protected and unprotected varieties of paper (excluding newsprint and old newspapers) was in the neighbourhood of 130,000 tons. In view of the unsatisfied demand during the war period and of the increased demand following the literacy drive in the country, it will be safe to assume that the total demand for paper (exclusive of newsprint) in the next year or two is likely to be 160,000 tons. Assuming that existing mills can produce up to a maximum of 85,000 tons, the gap between expected demand and actual supply will be 75,000 tons which will have to be bridged partly by expansion of existing mills or installation of new mills and partly by imports. At the conference it was stated to us that no new mill would be able to start production before 1950, since foreign manufacturers of paper mill machinery were not in a position to effect deliveries in less than two or three years. It might be possible for the existing mills to replace and re-equip their plants within this period, but even then their maximum production is not expected to exceed 85,000 tons. There is, however, as shown in the preceding paragraph, no possibility of importing in the next year or two more than 45,000 tons annually, excluding newsprint, as against the gap of 75,000 tons. That being the overall picture, it is clear that the country will have to remain short of paper for some time to come, that any imports coming from abroad will be supplementary rather than competitive, and that the country should welcome any steps which might be taken to create the atmosphere for increased imports or to lower prices of imports, both these factors having a beneficial effect on the general supply position in the country as well as on the anti-inflationary drive of Government.

Control and protection.

18. Both indigenously produced and imported paper is at present controlled by Government in the Department of Industries and Supplies in the matter of distribution and price. So long as this position obtains, it affords virtual protection to the industry in that it assures offtake for the entire production and fixes prices so as to leave a reasonable margin of profit to the producers.

Control over prices of imported paper ensures that there would be no competition between home-made and imported paper even if imported paper were to come at prices below the selling price of the Indian paper. When the control comes to be lifted, the position will be no worse for the industry so long as the scarcity of paper continues and imports offer no competition to the Indian industry either in the matter of quantity or in prices. We, therefore, conclude that although the existence or absence of control should not be mixed up with the claim for protection which must be judged on grounds of competition at present and in the near future, yet the control, while it lasts, affords virtual protection to the industry and therefore weakens the case for continuance of protection.

Fear of difficulty of revival of protection after deprotection.

19. One reason why the industry insists on continuance of protection even in the absence of competition is the fear that the industry, once de-protected, would find it difficult to secure protection, if it was again threatened by competition in future. Considering the genuineness of this apprehension on the part of the industry, we have given anxious thought to it, but we have come to the conclusion that there is no warrant for believing that Government, as it is now constituted, would be slow in recognising the importance of the industry in the national economy and doing everything in its power to safeguard it from dumping, foreign competition, or any other form of injury, such as, exchange manipulation. The readiness with which Government have recently come to the aid of relatively small wartime industries with schemes of protection should be a sufficient answer to all these doubts and fears, but even so, we propose to make a provision in our recommendation to allay these fears on the part of the industry.

Case for protection not proved.

20. We have seen before that foreign competition is practically non-existent, that imports are far short of the requirements of the country, that prices of imports are in some cases cent. per cent. above those of comparable Indian goods, that the industry has made considerable progress not only in protected varieties but even in unprotected varieties, and that protection is not regarded even by the spokesmen of the industry as conferring any benefit on the industry in the conditions of today. Mr. Jain made it clear that the industry asked for continuance of protection more as an insurance against dumping in future and for its sentimental and reassuring value than as an economic necessity. Earlier in the report we have stated the principles which, in our view, would justify grant or continuance of protection. The first pre-requisite for grant or continuance of protection is the existence of competition from which the industry needs to be protected. It is agreed on all hands that there is no such competition at present. There is, therefore, no case for the continuance of protection. The supply position is such that the country could do with far more imports than are offered from the various sources of supply as testified to by representatives of importers present at the conference. Even such imports as are available are coming at prices far in excess of the selling prices of Indian products which are fixed on the basis of cost of production. With all that, we might have been persuaded to recommend continuance of protection if we had felt that either the present position was unstable and likely to change materially

h the near future or there was no way of meeting the fears of the industry as regards the difficulty of timely re-imposition of protection in future. The survey of the world position in regard to the paper industry has disclosed that for some time to come India has nothing to fear from abroad. In our analysis of supply and demand, we have indicated that it would take many years before the gap between the two was bridged, even after taking into account plans for expansion. We have also shown that termination of protection does not mean that the industry would be, so to say, an orphan and would never be protected in future. It is possible to devise a scheme which, while conforming to the conditions of today, would set at rest the fears of the industry as regards the future. In the circumstances, we have come to the conclusion that the industry has failed to substantiate its claim or demand for continuance of protection; and we are further satisfied that the industry as it stands today does not need any protection by means of protective duties. In this context we cannot ignore the fact that, on the termination of protection as a result of the acceptance of our recommendations, some revenue duties are likely to be imposed which, though determined on financial considerations as against the requirements of the industry, would still afford a certain amount of indirect protection to the industry. In fact, the present position is that the unprotected varieties are more protected than the protected varieties because of the higher revenue duties leviable on them. We have brought in this point here not because we feel that the industry requires some protection but to ensure that the industry should not entertain the notion that termination of protection would automatically mean abolition of all duties.

Board's recommendation.

21. The conclusion referred to in the preceding paragraph renders consideration of the three alternatives put to the industry easy. As we have held that the industry has not proved the case for continuance of protection, it is not possible for us to recommend either the maintenance of *status quo* or the keeping of protective duties in abeyance while retaining the industry on the list of protected industries. Apart from the fact that the industry, not having made out a case for protection, is not entitled to ask for the protective duties to be kept in abeyance, there is the further objection to the adoption of this alternative in that suspension of the duties will cause loss of revenue to the State (*vide* appendix IX) without conferring any benefit on the industry or giving any reason to hope that thereby there would be an increased inflow of imports at lower prices. We are, therefore, left with the third alternative, namely, allowing the scheme of protection to lapse on March 31, 1947, and replacing the protective duties by such revenue duties as may be imposed by Government on financial considerations. We accordingly recommend that the protective duties now in force should be allowed to expire on the date on which they are due to expire and that thereafter the protected varieties of paper should be treated as unprotected varieties liable to revenue duties. The industry was asked if in the event of Government deciding on the termination of protection to the paper and paper pulp industry, there were any special protected items in respect of which an exception would be justified, and the reply was that it had no suggestion to make in this behalf. The Board is satisfied that of the four protected items none needs to be specially treated and that the recommendation for de-protection should apply equally to all protected items.

Revenue duties.

22. (*a*) *General remarks.*—It is not within the province of the Tariff Board to suggest what revenue duties should take the place of protective duties even while recommending termination of existing protection in the case of a particular industry. There are, however, some features of this particular case to which we would like to draw the attention of Government in order that they may be given due weight while determining the scale of revenue duties. One point is that a consequence of de-protection should not ordinarily be an increase in the quantum of duty. This, however, is likely to happen in this case, unless special care is taken to avoid it. This is due to the fact that revenue duties on paper are *ad valorem* whereas protective duties on two of the protected varieties are specific, their incidence being relatively low owing to the large increase in the price of paper in wartime. For instance, the incidence of the protective duty of 10-4/5 pies per lb. in the case of printing paper, item No. 44(1) of the Indian Customs Tariff Schedule (appendix X) must have been very much higher when the protective duty was first imposed and when the prices of paper were comparatively lower than what they are now. On the other hand, in the case of wood pulp, the *ad valorem* duty of 30 per cent. would mean a much higher incidence than what it must have been before the war the prices of pulp being nearly Rs. 590 per ton now as against Rs. 160 per ton in 1937-38. These instances illustrate the anomaly referred to by a representative of the importers at the conference that in actual practice some protected varieties of paper bore a much lower burden of duty than unprotected varieties, all of which were subject to *ad valorem* duties. In the protective list, wood pulp and writing paper (ruled or printed) are subject to *ad valorem* or specific duty, whichever is higher, while writing paper (all other sorts) and printing paper are subject to a specific duty of 10-4/5 pies per lb. only.

(*b*) *Wood pulp* is at present a protected item, but if our recommendations are accepted, it will be transferred to the revenue schedule. Representatives of the industry have suggested that Government should levy on this article as low a revenue duty as possible and urged that the present duty should be reduced by one-half. The present duty is 30 per cent. *ad valorem* or Rs. 36 per ton inclusive of surcharge—*vide* item No. 43 of the Import Tariff Schedule I. The operative duty is the *ad valorem* rate in view of the considerably higher price of wood pulp at present. There is now a tendency for a still further rise in the prices of wood pulp as indicated by the fact that only a short while ago Canada announced an increase of 10 per cent. in the price of its wood pulp. The latest quotations are £45 per ton c. i.f. Bombay, equivalent to Rs. 600. The duty at 30 per cent. on this c.i.f. price would be Rs. 180 per ton, which is very much higher than the alternative of Rs. 36 per ton. When the alternative of specific duty was laid down in the original scheme of protection, the position was that, owing to the possibility of import of wood pulp at reduced prices, the *ad valorem* duty might not give the same degree of protection as the specific duty. That position, however, has now completely changed, and the effective duty is the *ad valorem* rather than the specific rate. Considering that import of some wood pulp is not likely at present to jeopardise the indigenous bamboo and grass pulp industry and that in fact more import is required to step up the production of paper, taking advantage of the existing installed capacity, we

endorse the request of the paper industry that the duty on wood pulp should be lower than what it is today. We do not propose to suggest exactly what it should be, that being not our concern. If our suggestion of a lower duty on imported wood pulp is favoured by Government, the revenue duty will have to be lower than 30 per cent. *ad valorem*, or without the alternative of an *ad valorem* rate if it is to be a specific duty. In this connection we should like to mention that, although wood pulp was not manufactured in the country, a protective duty was imposed on it in order to develop the manufacture of bamboo pulp in India. . We have considered whether any reduction in the duty on pulp would prejudice the development of the grass and bamboo pulp industry in the country, and we are satisfied that, although there is no such danger at present, the matter would require to be carefully watched as some units of the industry might like to use imported pulp in preference to pulp manufactured by themselves. For this purpose, Government should prescribe the submission of periodical statements of pulp used by each paper factory, showing separately imported pulp and locally manufactured pulp used by the factory, and giving reasons where the use of imported pulp is rising at the expense of locally made pulp. If the substitution of imported pulp for locally made pulp tends to become high, there might be a danger of the indigenous pulp industry being weakened thereby. In such an event, an inquiry into the matter should be held and necessary action should be taken to safeguard the pulp industry by an increase in the rate of duty. In recommending this line of action, we have in view the fact that the pulp industry has been rightly encouraged by Government in the past as constituting the very basis of a well established and progressive paper industry, which cannot be allowed to be weakened by strong foreign competition.

(*c*) *Writing paper* is divided into two classes, namely, (*i*) ruled or printed forms, including letter paper with printed headings, and envelopes made of writing paper and account and manuscript books and binding thereof ; and (*ii*) all other sorts. The former variety is subject to a protective duty of 10-4/5 pies per lb. or 30 per cent. *ad. valorem*, whichever is higher, inclusive of surcharge ; while the latter variety is subject to a specific duty of 10-4/5 pies per lb. Considering the higher prices of paper now prevailing as compared with pre-war prices, the operative duty at present is 30 per cent. *ad valorem* and if the revenue duty is fixed at a figure not exceeding 30 per cent. *ad valorem*, there will be no increase in the existing level of duties. In the case of writing paper, all other sorts, *i.e.* variety (*ii*), a revenue duty of 10-4/5 pies per lb. would give a much lower incidence than 30 per cent. As we do not contemplate any increase in duties as a consequence of de-protection, we suggest that, in the case of variety (*ii*), the revenue duty should be no more than the specific duty which is at present leviable. This will no doubt create an anomaly of differential rates of revenue duty not only between unprotected and de-protected varieties of paper, but even amongst different varieties of de-protected paper, but this cannot be helped unless the specific duty is replaced by the usual *ad valorem* duty of 30 per cent. which, as mentioned above, we do not intend. In any case, we have not had time to examine this question at any length and to suggest ways and means of removing this anomaly or introducing a sort of uniformity in the different rates of revenue duties.

(*d*) What we said in the preceding subparagraph about writing paper applies equally to *printing paper*, in which case, therefore, on termination of protection, the revenue duty leviable should not exceed 10-4/5 pies per lb., although the revenue duty on printing paper containing mechanical wood pulp amounting to more than 70 per cent. of the fibre content, apart from the exceptions mentioned in the footnote to item No. 44 (2) in the tariff schedule, would be a very much higher rate, namely; 30 per cent. *ad valorem*.

Specific assurance of future protection.

23. We have explained at some length that the demand of the industry for continuance of protection was animated more by the fear and uncertainty of the future than by the requirements of to-day. We have also pointed out that the Panel's plea for extension of protection was prompted by the desire to facilitate the expansion of the industry so as to meet the demands of the country. There is really not much force in this contention, judging from the experience of a number of flotations of new companies which have taken place recently and in respect of which not only there has been no assurance of protection in the future but there is every indication of strong competition from abroad. We shall take only one example, that of the rayon industry. At least three new rayon concerns (Bombay, Travancore and Hyderabad) are being established shortly in the country, and it is said that these concerns did not have much difficulty in raising the necessary capital. The fact that the industry had no assurance of protection for the future did not result in the necessary capital being withheld from the ventures. We, however, recognise the genuineness of both these considerations and think that a more positive declaration from Government than a mere reference to its policy of industrial development is required in the present case. For the reasons explained by us in greater detail in our report on the iron and steel industry, we recommend that, simultaneously with the announcement of the decision of Government to terminate protection for the paper and pulp industry, they should make a categorical declaration (*a*) that this industry is one of national importance, (*b*) that Government will forward any application received from the industry for revival of protection to the Tariff Board for investigation and report, (*c*) that Government will pass orders on the report of the Board as expeditiously as possible and (*d*) that every endeavour will be made to complete all these stages in a period not exceeding six months. With such an assurance, we see no reason why the industry should entertain any apprehensions as to the future and why the expansion of the industry, on which point all are agreed, should in any way be hampered or retarded. Such a declaration is regarded by us as an integral part of our recommendation for de-protection and both must, therefore, go together. In our view, such an assurance should be more valuable to the industry than extension of protection from year to year without any knowledge as to what might be done later by way of a permanent measure.

Rayon industry and pulp.

24. The conference was attended by representatives of two firms interested in the manufacture of rayon in the country, namely, National Rayons, Bombay, and Travancore Rayons, Travancore. They urge that they were interested on wood pulp, which was a raw material in the production of rayon and of which

they would be consuming large quantities as soon as rayon manufacture was established. They would, therefore, like the duty on wood pulp to be reduced to the lowest possible figure. In any case, the representative of the rayon enterprises supported the consensus of opinion in the conference as regards deprotection of, and reduction in the duty on wood pulp. It was pointed out by these representatives that the rayon industry required a special type of pulp which was not yet produced in the country, and over the import of which, therefore, high duties, protective or revenue, were undesirable. It was explained to them that the need for any concession in the matter of duty on wood pulp asked for by the rayon industry would be investigated only when the case of the rayon industry was referred to the Board for inquiry and report. It will then be possible to examine how the cost of pulp was affecting the competitive capacity of the Indian-made rayon and where and how protection and assistance should be given.

Research.

25. The paper industry is now making a voluntary contribution at the rate of four annas per ton of paper for expenditure on research. Considering the average price of paper to-day, this contribution is very insignificant. The need for research in the paper industry is very great, and we wish to draw the attention of the industry therefore to the desirability of making more substantial contributions for research.

Publication of Paper Panel Report.

26. In the body of our report, we have referred to the report of the Paper Panel which we found to be rather helpful. We hope that the Paper Panel Report will be published before, or along with, our report so that the appreciation of our report may be facilitated. We were informed by the Secretary of the Panel that the Paper Panel's report would be published shortly and that is why we have made references to that report in our own proceedings.

Summary of conclusions and recommendations.

27. Our conclusions and recommendations are summed up as under :—

(1) The present revenue duties on unprotected varieties were affording the industry sufficient protection. Application of a regular scheme of protection to these unprotected varieties was, therefore, hardly called for. (Paragraph 13).

(2) The industry enjoys natural advantages with regard to the basic raw materials and has a vast and expanding market to cater for. (Paragraph 13).

(3) The industry has achieved considerable progress in wartime and is capable of expanding in the post-war period. (Paragraph 13).

(4) While the world manufacturing capacity in paper has been seriously impaired as a result of the war, the requirements of paper have increased substantially. The Indian paper industry has little to fear from any serious competition from abroad, at least for some time to come. The apprehension of dumping by other countries is based more on diffidence and nervousness than on solid verifiable data. (Paragraph 14).

(5) The country will have to remain short of paper for some time to come. Any imports coming from abroad will be supplementary rather than competitive. The country should welcome any steps which might be taken to create an atmosphere for increased imports or to lower prices of imports, both these factors having a beneficial effect on the general supply position in the country as well as on the anti-inflationary drive of Government. (Paragraph 17).

(6) The existence or absence of control should not be mixed up with the claim for protection which must be judged on grounds of competition at present and in the near future. Control, while it lasts, affords virtual protection to the industry. (Paragraph 18).

(7) There is no warrant for believing that Government, as it is now constituted, would be slow in recognising the importance of the industry in the national economy and doing everything in its power to safeguard it from dumping foreign competition, or injury by any other means such as exchange manipulations. (Paragraph 19).

(8) The industry has failed to substantiate its case for continuance of protection. The industry, as it stands to-day, does not need any protection by means of protective duties. (Paragraph 20).

(9) The protective duties now in force should be allowed to expire on the date on which they are due to expire. Thereafter, the protected varieties of paper should be treated as unprotected varieties liable to revenue duties which may be imposed by Government on purely budgetary considerations. (Paragraph 21).

(10) A consequence of de-protection should not ordinarily be an increase in the quantum of duty. [Paragraph 22 (*a*)].

(11) Since the import of some wood pulp is not likely at present to jeopardise the indigenous bamboo and grass pulp industry, and more import is required to step up production of paper, taking advantage of the existing installed capacity, the request of the paper industry that the duty on wood pulp should be lower than what it is to-day is endorsed. [Paragraph 22 (*b*)].

(12) In view of the importance of fostering and developing the bamboo pulp industry, Government should carefully watch the effect of the removal of protective duties on wood-pulp as some units in the industry might like to use imported pulp in preference to pulp manufactured by themselves. If substitution of imported pulp for locally made pulp tends to become high, an inquiry into the matter should be held and necessary action taken to safeguard the pulp industry by an increase in the rate of duty. [Paragraph 22(*b*)].

(13) The revenue duty leviable on writing paper (ruled and printed) should not be more than 30 per cent. *advalorem*, while the revenue duty leviable on all other sorts should not be in excess of 10-4/5 pies per lb. Similarly, the revenue duty on printing paper containing mechanical wood pulp amounting to less than 70 per cent. of the fibre content should not be higher than 10-4/5 pies per lb. on termination of protection. [Paragraphs 22 (*c*) and 22 (*d*).]

(14) Simultaneously with the announcement of decision to terminate protection for the paper and paper pulp industries, Government should make a categorical declaration (*a*) that this industry is one of national importance, (*b*) that Government will forward any application received from the industry for protection to the Tariff Board for investigation and report, (*c*) that Government will pass orders on the report of the Board as expeditiously as possible, and (*d*) that every endeavour will be made to complete all these stages in a period not exceeding six months. (Paragraph 23).

(15) The industry is advised to make more substantial contributions towards research. (Paragraph 25).

Acknowledgments. 28. The thanks of the Board are due to Mr. S. D. Sunawala and Rao Sahib Srinivasan, Technical Advisers attached to the Board, Mr. A. S. Bhatnagar, Secretary of the Paper Panel, and Rai Sahib S. C. Aggarwal and Dr. Rama Varma, Deputy Secretary and Assistant Secretary of the Board, for their advice and help throughout the course of this inquiry.

SHANMUKHAM CHETTY—President.

C. C. DESAI—Member—Secretary.

NAZIR AHMAD—Member.

S. C. AGGARWAL—Deputy Secretary.

Bombay, 15th February 1947.

SUPPLEMENTARY NOTE BY THE BOARD.

The Report has indicated that in the opinion of the Board the consequences of de-protection should not be the imposition, on the de-protected items of revenue duties on a higher scale than the existing protective duties. The different rates that now exist in the various categories of protected and unprotected paper have resulted in certain anomalies, to which the Board has drawn attention. The Board could not make any recommendations about the scale of revenue duties to be imposed on the de-protected items, because the question of revenue duties is outside the purview of the Board. In view of the great importance of making available paper in sufficient quantities and at as cheap a price as possible in the interest of the drive for literacy, we would strongly impress on Government the need for levying as low a revenue duty as possible on these de-protected items consistent with budgetary considerations. One of our colleagues, Mr. C. C. Desai, however takes the view that, regard being had to the world shortage of paper, there is little possibility of any appreciable increase in the supply of paper or of any material contribution to the anti-inflationary drive of Government as a result of a lower revenue duty and that, for these reasons, he sees no objection to the levy of a uniform revenue duty of **30 per cent.** *ad valorem* on all categories of paper.

APPENDIX I.

(*Vide* PARAGRAPH 1).

No. 134-T (36)/46.

GOVERNMENT OF INDIA.

DEPARTMENT OF COMMERCE.

FROM *New Delhi, the 19th December 1946.*

B. N. BANERJI, ESQ., M.B.E.,
Deputy Secretary to the Government of India.

To

THE MEMBER-SECRETARY,
Indian Tariff Board,
Caltex House, Ballard Estate,
Bombay.

SIR,

I am directed to address you on the question of continuance of protection to certain old established industries and particularly the sugar, paper and wood pulp, cotton textile manufacturing, and iron and steel manufacturing industries which had been granted tariff protection on the basis of recommendations made by previous Tariff Boards. As you are no doubt aware, the period for which protection had been granted to these industries was due to expire during the early years of the war, but had to be extended from time to time, and the last extension agreed to by the Legislature is due to expire on the 31st March 1947. Government have, therefore, to decide urgently as to their future course of action in respect of continuation of protection to these industries beyond the 31st March 1947 so that the necessary legislation could be undertaken during the forthcoming Budget Session of the Indian Legislature.

2. The most suitable method of coming to a decision on this question would undoubtedly be to request the Tariff Board to investigate the claims of these industries to continued enjoyment of protection at the existing, or at a reduced or enhanced scale. The Government of India are advised, however, that many of the economic uncertainties which made it impossible to conduct such an enquiry during the war are still continuing, and they are therefore considering whether any alternative method could be found for evaluating in a summary manner, and pending a full-dress tariff investigation which has to be postponed to a later date, the necessity or otherwise of continuing the existing measures of protection afforded to these industries beyond the 31st March 1947. While the Government of India consider that there is a good deal of force in the argument that conditions have not yet sufficiently returned to normal for a reasonably accurate appraisement of domestic cost and foreign prices, they feel at the same time that many of the already protected industries have reached a stage where the continuance of protection at the existing level merely results in the grant of an excessive margin of profit to the manufacturing interests at the direct expense of the consumer.

3. I am therefore to request you to be so good as to place this matter before the Tariff Board and let Government have their advice as to what would be the best method of proceeding further in this matter. In making their recommendations, the Board will no doubt bear in mind the interests both of the manufacturers and the consumers and will therefore consider the advisability of having a summary discussion with the representatives of the industries mentioned earlier in the letter and other interested parties. As a

decision has to be taken well before the commencement of the Budget Session in order to enable Government to introduce the necessary legislative measures in time, it will be greatly appreciated if the Board could forward their considered opinion as regards the degree of protection to be continued to these four industries, by the end of January, although this may involve some delay in completing the Board's programme relative to the wartime industries.

I have the honour to be,

SIR,

Your most obedient servant,

(Sd.) B. N. BANERJI,

Deputy Secretary to the Government of India.

APPENDIX II.

(*Vide* PARAGRAPH 1).

GOVERNMENT OF INDIA.

DEPARTMENT OF COMMERCE.

New Delhi, the 20th January 1947.

RESOLUTION.

Tariffs.

No. 28-T (6)/46.—In their Resolution in the Department of Commerce No. 218-T (55)/45, dated the 3rd November 1945, the Government of India announced the setting up of a Tariff Board to investigate claims for assistance or protection received from industries which have been started or developed in wartime.

2. Government have also under consideration the question of continuance of protection to certain industries which were established before the war and were granted tariff protection on the basis of recommendations made by previous Tariff Boards. They have decided to request the Tariff Board, set up under the Resolution referred to in the preceding paragraph, to investigate and advise them with regard to the claims of such industries.

3. Government recognise that, in the present abnormal conditions, it would not be possible to formulate a long term tariff policy in respect of the well established industries. The Tariff Board is accordingly requested to hold summary inquiries and advise Government whether, in present circumstances, protection at the existing or at a different scale should be granted for a further year after the 31st March 1947 to the following industries :—

(1) Sugar ;

(2) Paper and wood pulp ;

(3) Cotton Textiles ;

(4) Iron and Steel.

(Sd.) N. R. PILLAI,

Secretary to the Government of India.

APPENDIX III.

(*Vide* PARAGRAPH 2).

List of producers and other bodies invited to attend the Paper and Paper Pulp Conference.

PRODUCERS.

1. Indian Paper Mills Association, Calcutta.
2. Indian Paper Makers Association, Calcutta.
3. Mr. E. V. Ganapati Iyer, The Mysore Paper Mills, Ltd., Bangalore.
4. Mr. Laiq Ali, The Sirpur Paper Mills, Ltd., Sirpur, Hyderabad (Deccan).
5. Mr. Jagraj, The Straw Board Manufacturing Company, Ltd., Lahore.

IMPORTERS.

1. The Calcutta Paper Import Association, Calcutta.
2. J. B. Advani & Company, Ltd., Bombay.
3. Mr. D. C. Walmsely, John Dickinson & Company, Limited, Bombay.
4. Mr. Ranbir Singh, J. N. Singh & Company, Limited, Bombay.
5. Paper Trader's Association, Bombay.
6. Bholanath Dutt & Sons, Ltd., Calcutta.

CONSUMERS.

1. The National Rayon Corporation, Limited, Bombay.
2. The Travancore Rayons, Limited, Trivandrum.
3. Mr. B. G. Dhawala, Karnatak Printing Press and Publishing House, Bombay.
4. "The Times of India" Press, Bombay.
5. "Onlooker", Bombay.
6. The Bombay Law Reporter, Bombay.

LABOUR.

1. Mr. Somnath Dave, Textile Labour Association, Ahmedabad.

OFFICIALS.

1. Mr. P. G. Bhagat, M.B.E., Controller of Printing and Stationery, New Delhi.
2. Mr. M. L. Narsimiengar, Director of Industries, Government of Orissa, Cuttack.
3. Mr. M. P. Bhargava, Officer-in-Charge, Paper Pulp Section, Forest Research Institute, Dehra Dun.
4. Mr. K. B. Joshi, Hand-made Paper Research Institute, Poona.
5. Director General, Industries & Supplies, New Delhi.

OTHERS.

1. Mr. A. B. Nair, Office of the Consulate of Norway, Bombay.

APPENDIX IV.

(*Vide* PARAGRAPH 2).

List of Producers and others who attended the Paper & Paper Pulp Conference.

PRODUCERS.

Mr. S. P. Jain Mr. P. N. Sinha Mr. G. A. S. Sim, (India Paper Pulp Co., Ltd.).	Representing Indian Paper Mills Association, Calcutta.
Mr. J. C. Low (Bengal Paper Mills) Mr. F. S. Mitchell and Mr. L. Shuttleworth (Titaghur Paper Mills).	Representing Indian Paper Makers Association, Calcutta.
Mr. E. V. Ganapati Iyer	Representing The Mysore Paper Mills Ltd., Bangalore.
Mr. Tajuddin	Representing The Sirpur Paper Mills Ltd., Sirpur, Hyderabad (Deccan).

IMPORTERS.

Mr. Raghunath Dutt	Representing— 1. Bholanath Dutt & Sons Ltd., Calcutta, and 2. The Calcutta Paper Import Association, Calcutta.
Mr. Natailal	Representing Bholanath Dutt & Sons, Ltd., Calcutta.
Mr. L. V. Malkani	Representing J. B. Advani & Co., Ltd., Bombay.
Mr. D. C. Walmsley	Representing John Dickinson & Co., Ltd., Bombay.
Mr. Ranbir Singh	Representing J. N. Singh & Co. Ltd., Bombay.
Mr. D. D. Billimoria Mr. Parikh Mr. A. Heptulla	Representing Papor Traders' Association, Bombay.

CONSUMERS.

Mr. C. G. Mahant Mr. J. C. Chinai	Representing The National Rayon Corporation Ltd., Bombay.
Dr. Ing. Lavji Thoria	Representing The Travancore Rayons Ltd., Trivandrum.
Mr. Dixon	Representing "The Times of India" Press, Bombay.
Mr. Ratanlal	Representing Bombay Law Reporter, Bombay.
Mr. S. H. Mehta.	

LABOUR.

Mr. Somnath Dave	Representing Textile Labour Association, Ahmedabad.

OFFICIALS.

Mr. P. G. Bhagat, M.B.E.	..	.. Controller of Printing & Stationery, New Delhi.
Mr. M. L. Narasimiengar	..	.. Director of Industries, Government of Orissa, Cuttack.
Mr. M. P. Bhargava ..	..	.. Officer-in-Charge, Paper Pulp Section, Forest Research Institute, Dehra Dun.
Mr. A. S. Bhatnagar ..	..	.. Representing Directorate General, Industries & Supplies, New Delhi.

OTHERS.

Mr. H. Robinson	..	.. Representing H. M. Trade Commissioner in India, Bombay.

APPENDIX V.

(*Vide* PARAGRAPH 9).

Statement showing a comparative study of protective and revenue duties on protected and unprotected varieties of paper.

PROTECTED.

(*a*) *Printing Paper*—

Average c.i.f. price of printing paper, under item 44 (1) of Tariff Schedule, imported in 1945-46 .. .. .. 76 pies per lb.

The specific protective duty of 10-4/5 pies per lb. works out at .. .. 15·7% on the above c. i. f. Price;

which is lower than the *30% ad valorem* revenue duty if there was no protection.

(*b*) *Writing Paper*—

Average c.i.f. price of ruled or printed writing paper coming under item 44(*a*) of Tariff Schedule, imported in 1945-46.. 112 pies per lb.

The *ad valorem* protective duty leviable on the above item at 30% .. .. 33·6 pies per lb.

which is higher than the *10·8 pies* per lb. alternative specific duty under the same item or the equivalent protective specific duty leviable on all other items under item 44(*b*) of the Tariff Schedule.

UNPROTECTED.

The average c.i.f. price of unprotected packing and wrapping paper imported in 1945-46 is approximately .. .. 100 pies per lb.

The *ad valorem* revenue duty leviable on the above at 30% 30 pies per lb.

Whereas the protective duty on the basis of the specific level will only be .. .. 10-4/5 pies per lb.

In other words, it is clearly shown that the current revenue duties are, in all cases (except item 44(*a*) of the Tariff Schedule), higher than the current protective duties.

APPENDIX VI.

(*Vide* PARAGRAPH 13.)

Statement showing the Indian Mill Production of protected and unprotected varieties of paper since 1936-37.

(Quantities in tons).

Year	Protected	Unprotected	Total
1936-37	43,365	5,176	48,531
1937-38	47,798	6,013	53,811
1938-39	51,933	7,265	59,198
1939-40	59,574	11,239	70,813
1940-41	65,608	22,054	87,662
1941-42	63,623	29,924	93,574
1942-43	65,350	28,210	93,560
1943-44	63,743	23,865	87,608
1944-45	63,120	36,932	100,052
1945-46	58,851	28,551	97,402
1946-47 (April to November—8 months only)	33,304	20,108	53,412

APPENDIX VII.

(*Vide* PARAGRAPH 15).

Statement showing the imports into India of paper (including Boards, but excluding old newspapers, other kinds of paper, and newsprinting paper) under protected and unprotected headings.

(Quantities in tons).

Year	Protected	Unprotected	Total
1936-37	11,839	53,284	65,123
1937-38	14,780	71,886	86,666
1938-39	13,471	57,312	70,783
1939-40	17,518	45,542	63,061
1940-41	9,787	27,746	27,534
1941-42	1,296	10,438	11,724
1942-43	860	2,722	3,582
1943-44	1,725	5,745	7,470
1944-45	2,346	6,656	9,002
1945-46	14,311	12,188	26,499
1946-47 (April to August 5 months only)	8,133	9,568	17,701

Imports on Government account and/or under Lease-Lend arrangements are not included in the above figures.

APPENDIX VIII.

(*Vide* PARAGRAPH 15).

Statement showing imports into India of old newspapers, other kinds of paper and news printing paper.

(Quantities in tons).

Year	Old newspapers	Other kinds of paper	Newsprinting paper	Total
1936-37	54,730	3,528	36,748	95,006
1937-38	48,809	2,939	43,246	94,994
1938-39	47,383	2,876	32,590	82,849
1939-40	33,358	1,921	36,714	71,993
1940-41	35,714	1,157	30,731	67,602
1941-42	12,508	1,163	28,277	41,948
1942-43	1,120	1,509	11,237	13,866
1943-44	5	1,340	10,368	11,713
1944-45	..	2,134	22,419	24,553
1945-46	50	2,562	25,706	28,318
1946-47 (April to August 5 months only) ..	385	1,336	8,830	10,551

APPENDIX IX.

(*Vide* PARAGRAPH 21).

Statement showing revenue realised from protected items of paper and wood-pulp imported into India.

Sea Customs-Imports	1938-39	1943-44	1944-45	1945-46
	Rs.	Rs.	Rs	Rs.
1. Paper and Stationery	21,22,000	5,11,000	7,31,000	25,04,000
2. Wood pulp	6,66,000	1,13,000	12,23,000	6,12,000

NOTE :—Amounts realised from revenue duties on unprotected items of paper are not separately shown as they are included under " all other articles ".

APPENDIX X.

[*Vide* PARAGRAPH 22(a).]

EXTRACT FROM THE 27TH ISSUE OF THE INDIAN CUSTOMS TARIFF.

Schedule showing the protective and revenue duties leviable on imports of paper and paper pulp.

Item No. of the I Schedule (Import Tariff).	Name of article	Nature of duty	Standard rate of duty	Preferential rate of duty if the article is the produce or manufacture of		
				The U.K.	A British Colony	Burma
1	2	3	4	5	6	7
43	Wood pulp	Protective ..	25% *ad valorem* or Rs. 30/- per ton, whichever is higher plus one-fifth of the total duty.			
44	Writing paper :					
	(a) Ruled or printed forms (including letter paper with printed heading) and envelopes made of writing paper and account and manuscript books and binding thereof	Protective ..	Nine pies per lb. or 25 per cent. *ad valorem* whichever is higher plus one-fifth of the total duty.	..	..	12% *ad-valorem*.
	(b) All other sorts	Protective ..	10—4/5 pies per lb. ..			

44(1)	Printing paper, excluding poster and stereo and all coated paper but including art paper, all sorts which contain no mechanical wood pulp or in which the mechanical wood pulp amounts to less than 70 per cent of the fibre content	Protective ..	10—4/5 pies per lb. ..	..	..	12% *ad-valorem*.
44(2)	Printing paper, all sorts not otherwise specified which contain mechanical wood pulp amounting to not less than 70% of the fibre content*	Revenue ..	30% *ad valorem* ..	..	..	12% *ad-valorem*.
44(3)	Paper, including poster & stereo and all coated papers except art paper, all sorts not otherwise specified	Revenue ..	30% *ad valorem* ..	..	..	12% *ad-valorem*.
44(4)	Pasteboard, millboard, cardboard and straw-board all sorts	Revenue ..	30% *ad valorem* ..	..	..	12% *ad-valorem*.
44(5)	Trade catalogues and advertising circulars imported by packet, book or parcel post	..	Free	..	..	..
44(6)	Paper money	..	Free	..	..	..
44(7)	Newspapers, old in bales and bags ..	Revenue ..	30% *ad valorem* ..	..	..	12% *ad-valorem*.

* Under Government of India, Finance Department (Central Revenues), Notification No. 33, dated the 22nd June, 1935, as amended subsequently, the following classes of printing paper containing mechanical wood pulp amounting to not less than 70 per cent of the fibre content are exempt from payment of so much of the import duty as is in excess of the amount mentioned against each :—(*i*) newsprint in reels, unglazed—Rs. 1-12 4/5 per cwt. (*ii*) newsprint in reels, other sorts Rs. 2-1 3/5 per cwt., and (*iii*) all sorts not in reels (excluding chrome, marble, flint, poster, stereo and art paper) white grey—Rs. 2-6 2/5 per cwt.

Item No. of the I Schedule (Import Tariff).	Name of article	Nature of duty	Standard rate of duty	Preferential rate of duty if the article is the produce or manufacture of		
				The U.K.	A British Colony	Burma
1	2	3	4	5	6	7
45	Articles made of paper & Papier Mache ; Stationery including drawing & copy books labels, advertising circulars, sheet or card almanacs & calendars, Christmas, Easter & other cards including cards in booklet forms, including also waste paper cut excluding paper and stationery otherwise specified*	Revenue ..	30% *ad valorem* ..	..	..	12% *ad valorem.*
45(1)	Books, printed including covers for printed books maps, charts and plans proofs, music. manuscripts and illustrations specifically made for binding in books ..	.. ..	Free	..	..	..
45(2)	Prints, engravings and Pictures (Including photographs & picture postcards) on paper or cardboard†	Revenue. ..	60% *ad valorem* ..	..	..	24% *ad valorem.*

* Under Government of India, Finance Department (Central Revenues) Notification No. 33 dated the 22nd June 1935, as amended subsequently posters, pamphlets and other printed material intended for tourist propaganda purposes, provided they are issued by or under the auspices of the Governments of the countries, being countries outside India, within which travel is to be stimulated and are not primarily intended to advertise the services of any private tourist agency are exempt from payment of import duty.

† Under Government of India, Finance Department (Central Revenues) Notification No. 33, dated the 22nd June 1935, wall pictures and diagrams such as are ordinarily used for instructional purposes are exempt from payment of import duty.

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REPORT

OF THE

Indian Tariff Board

ON THE

WOODSCREWS INDUSTRY

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REPORT

OF THE

Indian Tariff Board

ON THE

WOODSCREWS INDUSTRY

PERSONNEL OF THE BOARD

SIR R. K. SHANMUKHAM CHETTY, K.C.I.E.—PRESIDENT.

MR. C. C. DESAI, C.I.E., I.C.S.—MEMBER-SECRETARY.

DR. NAZIR AHMAD, O.B.E.—MEMBER.

DR. H. L. DEY, D.Sc. (LOND.)—MEMBER.

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REPORT ON THE WOODSCREWS INDUSTRY

Reference to the Board.

An application for the protection of the Woodscrews Industry was made to the Commerce Department of the Government of India by Naraindas Industries Ltd., Lahore, in June 1945. The case of this industry was referred to the Tariff Board for investigation by the Government of India (Department of Commerce) in their Resolution No. 218-T(55)/45, dated the 3rd November 1945. (Appendix I).

Method of inquiry.

2. On the 28th November 1945 the Board issued a press communique inviting associations, firms or persons including producers, importers and consumers, directly interested in this industry or dependent upon it for their raw materials, who wished their views to be considered, to submit their representations. The Board also issued a detailed questionnaire. The lists of persons associations and firms to whom the questionnaire was issued and from whom replies or memoranda were received will be found in Appendix III and Appendix IV, respectively. One of our Members, Dr. Nazir Ahmad, visited the factory of Naraindas Industries Ltd., at Lahore, on the 8th July 1946, while the factory of Hind Screws, at Delhi, was visited by Mr. C. C. Desai on the 3rd July 1946 and by Dr. Nazir Ahmad on the 10th July 1946. Oral evidence of representatives of producers, consumers and importers was taken at Bombay on the 25th and 26th July 1946; the list of witnesses examined is appended. (Appendix V).

History of the industry.

3. It would appear that about the year 1932 a firm in Karachi of the name Messrs. Davidas Jethanand & Co., made an attempt to manufacture woodscrews. But we have not been able to obtain any information regarding the fate of this enterprise. The industry came into existence in India directly as a result of scarce conditions of supply created by the war. In the pre-war period, the principal supplying countries to the Indian market were the United Kingdom, Germany, Sweden, and Belgium. As the war progressed, the import of woodscrews declined and the demand in the country gave a strong impetus to local industrialists to start this industry. A list of the principal manufacturers of woodscrews, so far as is known, with their rated capacity is given in Appendix II. It would be noted that all the factories are situated in or near the Punjab. This is evidently due to the fact that in the Punjab there is available skilled labour required to fabricate screw-making machinery and to operate it. Most of the machinery was fabricated in India. There is a plentiful supply of trained labour in this area and electric power is also available at reasonable rates. So far as the market for the finished product is concerned, Amritsar is an important centre in Northern India and the factories thus enjoy the advantage of proximity to consuming centres in the north. The location of the industry in the Punjab has, however, imposed a handicap in the supply of the raw material. The main raw material is wire which is manufactured by the Indian Steel Wire Products Ltd., at Tatanagar, which is situated at a distance of 1,140 miles from Amritsar and involves a railway freight of Rs. 57 per ton of the wire. This handicap may be said to be counterbalanced by the other advantages enumerated above, provided the supply of the finished product from these factories is consumed in the Punjab and areas round about that province.

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Uses of the product.

4. Woodscrew enters as a raw material in furniture and cabinet-making industries, box-making, building, architectural industries and frame-making. The railways, dockyards and coach-builders are some of the large consumers of woodscrews. Woodscrews are made of brass, iron or steel. Our enquiry is confined to woodscrews made of steel, as the demand for the other varieties is very small.

Estimated demand.

5. No direct evidence is available regarding the pre-war consumption of woodscrews in India. Since, however, there was no woodscrews industry in India before the war, we can take the average of the import figures as an approximately correct estimate of the demand for woodscrews in the country. From the accounts relating to the Sea-borne Trade of India, it is found that the import of woodscrews for ten years from 1930-31 to 1939-40 was on an average 1,865 tons per annum. In certain years, the imports well exceeded 2,000 tons. The maximum pre-war demand may, therefore, be said to have been about 2,000 tons per annum. In view of the scarcity of supplies during the war years and in view of the anticipated expansion of the building and other industries, it may be assumed that the demand for woodscrews in India during the next five years will be between 2,500 and 3,000 tons per annum. The demand of the Indian railways alone will be approximately 180 tons per annum.

Imports.

6. In Appendix VI will be found a table containing the quantity and value of the total imports of woodscrews into India for the years from 1936-37 to 1945-46. Though in the early years of the war imports were steadily maintained on the pre-war level, a sharp decline is observed in the years 1942-43 and 1943-44. The position improved to some extent, in 1944-45 and during the current year 1945-46.

Domestic production.

7. In the course of the oral evidence, it was found that the annual productive capacity of all the Indian factories was about 200 tons on a single shift basis. Actually the production from September 1944 to August 1945—the last year for which figures are available—was under 130 tons. The failure of the Indian manufacturers to produce to the full extent of their rated capacity was due to the inadequate supply of wire which is the main raw material. Given the necessary quantity of the wire required, and working on two shifts, the factories can produce about 400 tons of woodscrews per annum. It would thus be seen that the Indian production capacity at present falls far short of the anticipated demand, indicating at the same time scope for expansion of the industry in the country.

Quality of the indigenous product.

8. The generality of opinion amongst the consumers is that the indigenous woodscrew does not compare favourably with the imported article in quality. Complaint is made about variations in the depth of threads rendering the screws liable to fall out of timber under load. The slot in the head of the screws is often eccentric, the gimlet point is absent and the general finish is rather poor. The manufacturers contend that, though in the beginning the quality of their product was unsatisfactory, they have of late considerably improved in this direction. The fact, however, remains that the indigenous product cannot be said to be of the same quality as the imported article. The poorness of

the quality is due to factors for some of which the manufacturer cannot be blamed. The wire used in the manufacture of woodscrews has to be made from steel billets of special specifications with a higher sulphur content ranging from 0·1% to 0·15%. It was admitted by the manufacturers of wire that the wire hitherto supplied to the woodscrew industry does not conform to this specification. Special die and high speed steels are also required for making dies used in the manufacture of screws. The correct type of die steel was not easily available to screw manufacturers. Apart from these two factors, the machinery employed in the manufacture of woodscrews cannot be said to be up-to-date. Most of these plants were fabricated in India. The manufacturers of woodscrews must now endeavour to replace them by more efficient and up-to-date machinery. Steel woodscrews are also nickel or chromium plated or bronzed, galvanised, japanned or sherardised. Steel screws with one or other of the above finishes last longer and do not deteriorate quickly. Railways and other consumers require such screws for high-class work. The Indian manufacturers do not at present possess the equipment for giving such finish. They must take steps to obtain the necessary equipment for this purpose.

Raw materials.

9. The Chief raw material for the industry is hard bright steel wire from 4 SWG to 14 SWG. As mentioned in the previous paragraph, the wire has to be made from billets of special specification. This specification is as follows :—

Carbon	..	·08 to ·13%
Sulphur	..	·1 to ·15%
Manganese	..	·6 to ·9%
Phosphorus	..	·09 to ·13%

Though steel wire conforming to these specifications has not so far been supplied to the screw industry, we have been told by the representative of the Indian Steel and Wire Products Ltd., that there will not be any difficulty in manufacturing wire to this specification. We were told by a representative of Mukund Iron and Steel Works Ltd., Bombay, that his firm is also in a position to supply wire conforming to this specification upto 700 tons per annum if so required. When all the woodscrews required in the country are manufactured in India, the total quantity of wire required would be about 4,000 tons assuming a production of 3,000 tons of woodscrews. There is no likelihood of this production materialising in the near future. We have assumed a total possible production of only 400 tons of woodscrews in the near future, and the quantity of wire required would be about 530 tons per annum. We understand that the Government of India are reintroducing the steel control and allocating a definite quantity for distribution amongst the industries which use steel. In view of the importance of the woodscrews industry in the national economy, we recommend that the Director General, Industries and Supplies, should make available to the woodscrew industry at least 530 tons of steel wire per annum during the period of protection recommended by us. The quantity of steel wire required is comparatively small, but the importance of the woodscrew industry is great. With a view to enabling the wire manufacturers to supply the right type of wire, it would be necessary to place the orders for wire in bulk. The representative of the Indian Steel and Wire Products Ltd., stated that they would conveniently supply less than a wagon load which would be about 20 tons of wire. We strongly recommend that the manufacturers of woodscrews should form themselves into an association and order the wire in bulk from the wire manufacturers and distribute it amongst the woodscrews producers.

Board's estimate of the cost of production and fair selling prices.

10. The accounts of three companies (*viz.*, the Victor Industries, Amritsar, the Indian Engineering Corporation, Amritsar, and the Hind Screws, Delhi), were costed by an officer specially deputed by the Board. It was found that during the year ending 31st March 1946 the cost of production of these three companies was Re. 0-14-5, Rs. 1-0-6, and Rs. 1-8-2 per inch gross of woodscrews. We have taken the woodscrew of 1" × 8 as the representative type for comparison between the cost of production and the cost of the imported article, as we were told that this was the most popular and representative size. The cost of production of the Indian manufacturers is admittedly high. This is due mainly to the fact that for want of adequate raw materials the production was very low. We must assume a minimum quantity of production for estimating a reasonable cost. A minimum production of 1,15,000 gross per year will be necessary for the cost to be reasonable. On this basis, and on the actual cost of the Victor Industries, Amritsar, with certain modifications made by us, we arrive at the following estimate of cost :—

Board's estimate of cost of 1" × 8 *woodscrews per gross up to 31st March 1948*

Period	..	1946-47-48.
Estimated annual output in gross	..	1,15,000

		Rs.
1. Materials 1·120 lbs. H. B. wire @ Rs. 0·2375 per lb. (Rs. 532 per ton)	..	0·266
2. Power and fuel—		
Electricity	..	0·022
Coal	..	0·004
3. Labour	..	0·231
4. Repairs and maintenance	..	0·032
5. Consumable stores	..	0·019
6. Establishment	..	0·065
7. Depreciation	..	0·079
8. Other overheads	..	0·043
9. Packing charges	..	0·051
10. Selling expenses	..	0·012
Total	..	0·824
Add interest on working capital (Rs. 30,000 @ 4% per annum)	..	0·010
Total Cost	..	0·834
Add profit @ 10% on fixed capital (Rs. 45,000)	..	0·039
Total cost + profit	..	0·873 or Rs. 0–13–11½ per gross.
i.e. Fair selling price	Rs.	0–14–0 per gross.

It will be found that the total cost, including interest on working capital and profit at 10 per cent. on fixed capital expenditure, comes to 14 annas per gross. This would represent the fair selling price for the Indian manufacturer. We are satisfied that with improved machinery and increase in production this cost is capable of still further reduction. With a view to giving a reasonable time to the Indian manufacturers to improve their methods, we have come to the conclusion that for the period up to the end of March 1948, fourteen annas per inch gross must be considered as the fair selling price. After this date it should be possible, by further economies in their methods of production and increase in the volume of production, to bring down the fair selling price to 12 annas per inch gross.

11. In the overall cost the price of wire comes to about 35 per cent. of the total cost. In our calculation of the cost we have taken the price of wire at Rs. 532 per ton. This is based on the information that we obtained about the current price for wire. The price of wire of 8 SWG. per ton works out as follows :—

		Rs.	a.	p.
Selling price at port areas	..	410	0	0
Extra for testing	..	20	0	0
Special composition	..	26	0	0
Add 10% of composition	..	2	9	6
Railway freight from Karachi to Amritsar	..	60	12	0
Transport from station to works	..	12	0	0
		531	5	6
	Or say ..	532	0	0

If the price of wire is increased substantially, the measure of protection that we recommend will have to be re-examined.

Landed cost.

12. There is a revenue duty of 30 per cent. *ad valorem* on woodscrews. The pre-war landed cost of iron woodscrews imported from the continent inclusive of the 30 per cent. duty was 3 annas per gross. The actual selling price in the market was Re. 0-3-3 per gross. According to the information supplied by

a leading firm of importers, the present landed cost of Nettlefolds woodscrews is as follows :—

Present landed cost of Nettlefords woodscrews at the present ruling discount of 5% less 2½ per cent.

	Sh.	d.
100 gross iron woodscrews C/sunk head 1″ × 8 @ sh. ⅓ gross ..	125	0
C.i.f. less 5% discount ..	6	3
	118	9
Less 2½% discount ..	2	11¾
	115	9¼
Plus duty 30% ..	34	9½
	150	6¾
Plus Bombay Port Trust charges 1½% ..	2	3
	152	9¾
Plus clearing charges and cartage etc. 2% ..	3	½
	155	10¼

i.e., say sh. 155 *d.* 10¼ = Rs. 105-3-3 per 100 gross. Landed cost per gross Rs. 1-0-10, say Re. 1-1-0. Selling price per gross = Rs. 1-3-6.

Measure of protection recommended.

13. It will be seen from the foregoing that while the present-day landed cost of 1″ × 8 woodscrews is Re. 1-1-0 per gross, the fair selling price for the Indian manufacturer is Re. 0-14-0 per gross. The existing revenue duty therefore affords sufficient protection to the Indian manufacturer. *Prima facie* therefore, no further action by way of any protection or assistance is required by the Indian manufacturer. The Indian manufacturers would however require some assurance of stability in prices if they are to invest further capital and expand the industry. The practice of the foreign manufacturers in quoting their prices for export is also to be taken note of in this connection. The foreign manufacturers have a certain fixed list price. The actual price for the time being for any consignment is determined by the discount that they allow on their list price. This discount has varied within very wide margins—from 5 per cent. to 83½ per cent. One cannot be sure what will be the rate of discount that an exporter will allow at a particular time. To safeguard against this uncertain factor and to assure the Indian industry about its own future, so necessary for any scheme of expansion, we recommend that the existing revenue duty of 30 per cent. should be converted into a protective duty of 30 per cent. *ad valorem* and that the protective duty should remain in force till the 31st March 1950. With a view to ensuring to the home manufacturer the measure of protection granted to him, it is the usual practice of this Board to recommend an adjustment of duty in the event of a fall in the landed cost below a stated figure. The effect of such action

is to stabilise the price of the article at a figure which is equivalent to the fair selling price. From the point of view of the consumer we think it undesirable to stabilise the price of woodscrews at 14 annas per inch gross which is the fair selling price of the home manufacturer. The pre-war price of woodscrews was about 5 annas per inch gross. To stabilise the price at about 3 times the pre-war price may not be advisable. It is possible that the price of imported woodscrews might go down. In such an event the consumer should get the benefit of the fall in price. While the consumer gets this benefit, the home manufacturer will have to be protected. With a view to achieving the two results, we recommend that if, during the period before the 31st March 1948, the landed cost of imported woodscrews of the size 1" × 8 inclusive of the duty goes below 14 annas per inch gross, a subsidy should be paid to the Indian manufacturers equal to the difference between the lowest landed cost in each half year and the fair selling price, namely 14 annas per inch gross as estimated by the Board. Since we have shown in paragraph 10 that the fair selling price may be expected to come down to 12 annas per inch gross after March 1948, we recommend that the subsidy to be given during the period from 1st April 1948 to 31st March 1950 should be the difference between the lowest landed cost and 12 annas per inch gross. The subsidy proposed should be paid every six months and should be given on the basis of sales during the preceding half year. The scale of subsidy that we have recommended would be applicable only to existing manufacturers. So far as the future manufacturers are concerned, they should not be debarred from subsidy, but in their case the fair selling price should be fixed ad hoc on cost accounting of the manufacturer provided that in no case should the fair selling price so fixed exceed 14 annas per inch gross during the period ending 31st March 1948 and 12 annas per inch gross from 1st April 1948 to 31st March 1950. Such an assurance should prove to be sufficient encouragement for entrepreneures to set up new factories for the manufacture of woodscrews. For the purpose of payment of subsidy we have taken the price of woodscrews of 1" × 8 since we are told that this is a representative size and the discount allowed by the foreign manufacturers is uniform for all sizes of screws. It is possible that with a view to circumventing the recommendations that we have made, the importers may maintain the price of the 1" × 8 screw at 14 annas and manipulate the prices of other sizes of screws to the disadvantage of the indigenous manufacturers. If such a situation arises, the whole matter of the adjustment of duty will have to be re-examined. In view of the past practice of foreign manufacturers in varying the rates of discount frequently, it is necessary that our recommendations if accepted by the Government should be implemented without any delay.

14. It is difficult to give an accurate estimate of the amount of subsidy that may have to be paid in case there is a fall in the price of imported woodscrews. The subsidy will depend on the actual fall in import price and the volume of home production. The pre-war landed cost of woodscrews was about 5 annas per inch gross and the present landed cost is about Rs. 1-1-0 per inch gross. If there is a fall in the import price, there is no likelihood of the landed cost going below 10 annas per inch gross. As indicated in paragraph 7, the maximum domestic production of the existing factories will be about 400 tons of woodscrews per annum on the basis of the factories working on two shifts. Unless new factories come into existence, there is no likelihood of an increase in domestic production beyond this. Assuming that the maximum output of 400 tons per annum is reached and that the landed cost comes down to 10 annas per inch gross, the subsidy will be about Rs. 2,00,000 for the period ending 31st March 1948 and about Rs. 1,00,000 per annum for the two years from 1st April 1948 to 31st March 1950. (A ton is equal to approximately 2,000 inch gross.)

Eligibility for protection.

15. In the resolution of the Government of India referring the industry to the Tariff Board for investigation, certain conditions are laid down by Government which the industry seeking protection must satisfy if it is to become eligible for protection. Notwithstanding the fact that the machinery installed in the factories is not up-to-date, we are satisfied that the industry as a whole is run on sound business lines. The principal raw material is available in the country. There is a home market for the product. Apart from this we are definitely of opinion that the woodscrew industry is a vital industry in the economy of the country. Though the demand of 3,000 tons of woodscrews per annum may be considered to be an insignificant factor by itself, woodscrews are a vital necessity in a great variety of industries. The railways, building and furniture industry, and a host of minor activities will be paralysed without an adequate supply of woodscrews, and it is undesirable for India to be continually depending on foreign supplies for such an essential article. For these reasons we are of opinion that the woodscrew industry deserves to be protected and fostered.

Miscellaneous matters.

16. It was represented to us in the memoranda submitted by some of the parties that the customs duty on steel wire is a handicap for the woodscrew industry. The present customs duty on steel wire of British manufacture is Rs. 37-3-0 per ton and on that of non-British manufacture Rs. 79-3-0 per ton. Since there is no possibility of any imports coming from non-British sources, we may assume that the effective duty is the British rate of duty of Rs. 37-3-0 per ton. It is generally the policy of this Board to recommend either that raw materials for industry should be admitted free of duty or that a rebate of duty should be given to the consuming industries. We are not recommending this course in the present case, because the incidence of the duty on steel wire on the overall cost of woodscrews is negligible. From the information supplied by the representative of the Engineering Association of India, the current c.i.f. price of 8 G Rigby BDMS screw steel wire of British manufacture is as follows :—

		£	
Cost of wire f.o.b. British ports	..	30	per ton.
Packing charges	..	3	,, ,,
Freight and insurance	..	1·5	,, ,,
Total	..	34·5	per ton.

which is equal to about *Rs. 460.*

The specific duty of Rs. 37·2 per ton on British wire when converted into an *ad valorem* rate comes to 8·08 or say 8·1 per cent. The total incidence of the duty on the overall cost of woodscrews is Rs. (37·2 × 4/3 × 1/2000) = 4·8 pies per gross. (4/3 tons of wire is required to produce 1 ton of screws which is equivalent to 2,000 inch gross of screws.) This cannot be considered to be a burden on the woodscrew industry. Moreover, the duty on the raw material is only about 8 per cent. as against the duty of 30 per cent. on the finished product. It will be seen from the figures given above that even if there be duty-free import of steel wire, the cost of the imported steel wire will not be less than the cost of steel wire manufactured in India. The Indian producers could not furnish any evidence that the British manufacturer of woodscrews gets steel wire at a price below what it costs the Indian manufacturer of woodscrews. For all these reasons we are of the opinion that the customs duty on the raw material does not impose any serious handicap on the indigenous manufacturers of woodscrews.

17. Among the consumable stores required by the woodscrew manufacturers, die steel for the manufacture of dies and high speed steel for the manufacture of cutting tools are very important items. Without the die steel and high speed steel of the right type it is impossible to turn out woodscrews of good quality. The total quantity of die and high speed steels which the Indian manufacturers would require for producing about 400 tons of woodscrews will be about 8 or 9 tons per annum. The Indian manufacturers at present suffer from the handicap of the non-availability of the right kind of die and high speed steels. We were told that these kinds of steel are available from British manufacturers. We recommend that licence to import these steels should be freely given to the woodscrews industry. In obtaining the die steel also, the manufacturer can with advantage, utilise the machinery of an association through which they can order the steel in bulk.

18. In paragraph 3 of our report we have referred to the fact that all the existing factories are situated in the Punjab and that this location involves a railway freight of Rs. 57 per ton on the raw material. So long as the woodscrews manufactured in these factories are marketed at centres not far removed from the factories, the freight on the raw material cannot be considered to be an unnecessary item in the cost. If, however, a corresponding freight is to be incurred on the finished product also, it would mean that the production does not take place at convenient centres. As the total demand of the country as estimated by us is about 2,500 to 3,000 tons per annum, more factories will have to be established to cater to this demand. In the establishment of such new factories attention will have to be bestowed on the question of location. Woodscrews are required all over the country. The raw material must necessarily come only from one or two sources. If the woodscrew industry is to be developed on a rational basis, the factories must be spread out at convenient centres throughout the country. This is, however, a matter for the planning authorities. The owners of the existing factories in the Punjab must however take note of this factor in their programme of expansion of production.

Summary of recommendations.

19. Our conclusions and recommendations are summarised as under:

(i) The demand for woodscrews in India during the next five years will be between 2,500 to 3,000 tons per annum. (Paragraph 5.)

(ii) Given the necessary quantity of steel wire required, and working on two shifts, the existing factories can produce about 400 tons woodscrews per annum. (Paragraph 7.)

(iii) The indigenous product cannot be considered to be of the same quality as the imported one. Manufacturers of woodscrews must endeavour to obtain more efficient and up-to-date machinery. (Paragraph 8.)

(iv) The Director-General, Industries and Supplies, should make available to the woodscrew industry at least 530 tons of steel wire per annum during the period of protection recommended by us. The manufacturers of woodscrews should form themselves into an association and order wire in bulk from the wire manufacturers and distribute it among the Indian producers. (Paragraph 9.)

(v) A minimum production of 1,15,000 gross per annum will be necessary for the cost to be reasonable. The total cost of production including interest on working capital and profit on fixed capital expenditure, comes to 14 annas per inch gross of woodscrews of 1" × 8 size. This represents the fair selling price for the Indian manufacturer. This price must be assured to the Indian manufacturer up to the end of March 1948. After this date, it should be possible to bring down the fair selling price to 12 annas per inch gross. (Paragraph 10.)

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(vi) In our calculation of the cost of production we have taken the price of wire at Rs. 532 per ton which is based on the current price of wire. If this price is increased substantially, the measure of protection recommended by us will have to be re-examined. (Paragraph 16.)

(vii) The present landed cost of Nettlefold woodscrews of the size 1" × 8 Re. 1-1-0 per gross inclusive of 30 per cent. customs duty. (Paragraph 12.)

(viii) The existing revenue duty of 30 per cent. should be converted into a protective duty of 30 per cent. *ad valorem* and that the protective duty should remain in force till the 31st March 1950. If during the period before 31st March 1948 the landed cost of imported woodscrews of the size of 1" × 8 inclusive of duty goes below 14 annas per inch gross, a subsidy should be paid to the Indian manufacturers equal to the difference between the lowest landed cost in the preceding half year and the fair selling price, namely 14 annas per inch gross. The subsidy to be given during the period from 1st April 1948 to 31st March 1950 should be the difference between the lowest landed cost and 12 annas per inch gross. The subsidy proposed should be paid every six months and should be given on the basis of sales during the preceding half year. The scale of subsidy would be applicable only to the existing manufacturers. So far as the future manufacturers are concerned, they should not be debarred from subsidy but in their case the fair selling price should be fixed ad hoc on cost accounting of the manufacturer provided that in no case should the fair selling price so fixed exceed 14 annas per inch gross during the period ending 31st March 1948 and 12 annas per inch gross during the period from 1st April 1948 to 31st March 1950. In view of the past practice of foreign manufacturers in varying the rates of discount frequently, it is necessary that our recommendations if accepted by the Government should be implemented without any delay. (Paragraph 13.)

(ix) We are definitely of opinion that the woodscrew industry is a vital industry in the economy of the country and deserves to be protected and fostered. (Paragraph 15.)

(x) The total incidence of the duty on steel wire on the overall cost of woodscrews is 4·8 pies per gross. The duty on the raw material does not impose any serious handicap on the indigenous manufacturers of woodscrews. (Paragraph 16.)

(xi) Licences to import die steel and high speed steel should be given freely to the woodscrew industry. (Paragraph 17.)

(xii) If the woodscrews industry is to be developed on a rational basis, the factories must be spread out at convenient centres throughout the country. (Paragraph 18).

20. The Board wishes to place on record its thanks to Mr. P. V. Raghava Rao and Mr. V. H. Mumford, Cost Accounts Officers, Mr. Jang Bir Singh of the Department of Industries and Supplies, and its Technical Adviser, Mr. R. N. Kapur for the valuable assistance that they rendered throughout the course of this enquiry.

Acknowledgments.

SHANMUKHAM CHETTY—President.
C. C. DESAI—Member-Secretary.
NAZIR AHMAD—Member.
H. L. DEY—Member.

RAMA VARMA—Assistant Secretary.
Bombay, the 18th September 1946.

APPENDIX I

DEPARTMENT OF COMMERCE

RESOLUTION

TARIFFS

New Delhi, the 3rd November 1945.

No. 218-T (55)/45.—In the statement on industrial policy issued by the Government of India on the 23rd April 1945, it was announced that, pending the formulation of a tariff policy appropriate to the post-war needs and conditions of the country and the establishment of permanent machinery for the purpose, Government would set up machinery for investigating claims from industries, which have been started or developed in war-time and which are established on sound lines, to assistance or protection during the transition period. A press communique issued on the same date invited industries to address their claims to the Secretary to the Government of India in the Department of Commerce.

2. Several industries have accordingly applied for assistance or protection, and on a preliminary examination of their claims, the Government of India have come to the conclusion that applications submitted by the following industries call for a detailed examination :—

(i) non-ferrous metals, including antimony ;

(ii) grinding wheels ;

(iii) caustic soda and bleaching powder ;

(iv) sodium thiosulphate, sodium sulphite anhydrous, sodium bisulphite ;

(v) phosphates and phosphoric acid ;

(vi) butter colour, aerated water powder colour ;

(vii) rubber manufactures ;

(viii) fire hose ;

(ix) wood screws ;

(x) steel hoops for baling.

Other applications are under the consideration of Government, and further action in their case will be taken in due course.

3. In addition to the industries which have applied for assistance or protection, there are certain industries the starting of which was considered essential by the Government of India under conditions created by the war. Early in 1940, Government announced that specified industries promoted with their direct encouragement during war-time might feel assured that, if they were conducted on sound business lines, they would, by such measures as Government might devise, be protected against unfair competition from outside India. In accordance with this decision

the following industries have been given an assurance of protection against unfair competition after the war :—

(i) bichromates ;

(ii) steel pipes and tubes up to a nominal bore of 4 inches ;

(iii) aluminium ;

(iv) calcium chloride ;

(v) calcium carbide ;

(vi) starch.

Of these industries, only those engaged in the manufacture of bichromates, calcium chloride and starch have so far applied for assistance or protection during the transition period. The Government of India consider that the applications submitted by these three industries also call for immediate investigation.

4. For the purpose of these and any subsequent investigations, the Government of India have decided to set up a Tariff Board for a period not exceeding two years, in the first instance. The Board will consist of :—

PRESIDENT :

Sir R. K. Shanmukham Chetty, K.C.I.E.

MEMBERS :

Mr. C. C. Desai, C.I.E., I.C.S.

Prof. H. L. Dey, D.Sc. (London).

The Board will include one more Member whose name will be announced shortly. Mr. Desai will act as Secretary to the Board in addition to his duties as Member.

5. The Tariff Board is requested to undertake, in such order as it thinks fit, the investigation of claims put forward by the industries specified in paragraphs 2 and 3 above. In the case of each industry the Board will, after such examination as it considers necessary, report whether the industry satisfies the following conditions :—

(1) that it is established and conducted on sound business lines ; and

(2) (*a*) that, having regard to the natural or economic advantages enjoyed by the industry and its actual or probable costs, it is likely within a reasonable time to develop sufficiently to be able to carry on successfully without protection or State assistance : or

(*b*) that it is an industry to which it is desirable in the national interest to grant protection or assistance and that the probable cost of such protection or assistance to the community is not excessive. Where a claim to protection or assistance is found to be established, i.e., if condition (1) and condition (2) (*a*) or (*b*) are satisfied, the Board will recommend—

(i) whether, at what rate and in respect of what articles, or class or description of articles, a protective duty should be imposed ;

(ii) what additional or alternative measures should be taken to protect or assist the industry ; and

(iii) for what period, not exceeding three years, the tariff or other measures recommended should remain in force.

In making its recommendations the Board will give due weight to the interests of the consumer in the light of the prevailing conditions and also consider how the recommendations affect industries using the articles in respect of which protection is to be granted. Since relief, to be effective, should be afforded without delay, the Board is requested to complete its enquiries with all possible expedition and to submit a report as soon as the investigation of the claim of each industry is concluded.

6. The headquarters of the Board will be at Bombay, but it will visit such other places as it thinks necessary for purposes of its enquiries. Firms and persons interested in any of these industries, or in industries dependent on the use of the products of these industries, who desire that their views should be considered, should address their representations to the Secretary to the Board.

7. Any claims hereafter received from other industries which in the opinion of the Government of India are suitable for examination by the Board will be referred to the Board in due course for examination.

8. The Government of India trust that Provincial Governments and Administrations will afford the Board all the assistance which it may require and will comply with any request for information which may be addressed to them by it.

N. R. PILLAI,
Secretary.

APPENDIX II

List of principal manufacturers of woodscrews with their rated annual capacity on single shift.

	Name of manufacturer.	Rated capacity.		
		Gross		Tons.
1.	The Victor Industries, Amritsar ..	90,000	or	45
2.	The Universal Screw Factory, Amritsar ..	72,000	or	36
3.	The Hind Screws, Birla Lines, Delhi ..	70,000	or	35
4.	The Indian Engineers' Corporation, Amritsar	50,000	or	25
5.	Shree Jam Wire Products, Jamnagar State .	36,000	or	18
6.	Budhwan & Co., Lahore ..	36,000	or	18
7.	Naraindas Industries, Ltd., Lahore ..	35,000	or	17½
8.	Bombay Brass Works, Jullundar City ..	Not known.		

APPENDIX III

List of firms and individuals to whom the Questionnaire was sent.

Manufacturers—

1. Victor Industries, Amritsar.
2. Universal Screw Factory, Amritsar.
3. Hind Screws, Delhi.
4. Indian Engineers' Corporation, Amritsar.
5. Naraindas Industries, Lahore.
6. Shri Jam Products Ltd., Jamnagar State.
7. Budhwar & Co., Lahore.
8. Bombay Brass Works, Jullundar City.
9. National Screws & Wire Products Ltd., Calcutta.
10. Faridkot Screw Factory, Faridkot State.

Consumers—

1. E. I. R., Calcutta.
2. S. I. R., Trichinopoly.
3. G. I. P. Railway, Bombay.
4. M. & S. M. Railway, Madras.
5. N. W. Railway, Lahore.
6. B. A. Railway, Calcutta.
7. Scindia Steam Navigation Co. Ltd., Bombay.
8. Garden Reach Works Shops Ltd., Calcutta.
9. Hooghly Docking & Engineering Co. Ltd., Calcutta.
10. Sunder Stores, Bombay.
11. Port Commissioner, B. P. T., Bombay.
12. Chief Engineer, P. W.D. (Punjab), Lahore.
13. Director General of Ordnance Factories, Calcutta.
14. Chief Engineer, P. W. D., Bombay.

Importers—

1. Messrs. Abdullabhai Faizallabhai, Bombay.
2. ,, Chimanlal Desai & Co., Bombay.
3. ,, S. A. Mahabaleshwarala, Bombay.
4. ,, Chimanlal Virjalal & Co., Bombay.
5. ,, N. S. Mohamed, Bombay.
6. ,, Guest, Keen Williams, Calcutta.
7. ,, Jessop & Co., Calcutta.
8. ,, P. O. Dutta & Sons, Calcutta.
9. ,, Dhani Ram & Sons, Lahore.
10. ,, E. A. Karim, Calcutta.
11. The Deputy Steel Controller, Calcutta.

APPENDIX IV

List of firms and individuals who sent replies to the Questionnaire.

Manufacturers—

1. Victor Industries, Amritsar.
2. Naraindas Industries, Lahore.
3. Hind Screws, Delhi.
4. Indian Engineers' Corporation, Amritsar.

Consumers—

1. E. I. Railway, Calcutta.
2. S. I. Railway, Trichinopoly.
3. G. I. P. Railway, Bombay.
4. M. & S. M. Railway, Madras.
5. N. W. Railway, Lahore.
6. B. A. Railway, Calcutta.
7. Scindia Steam Navigation Co. Ltd., Bombay.
8. Hooghly Docking and Engineering Co., Calcutta.
9. Port Commissioner, B. P. T., Bombay.
10. Director-General of Ordnance Factories, Calcutta.
11. Chief Engineer, P. W. D., Bombay.

Importers—

1. Messrs. Abdullabhai Faizallabhai, Bombay.
2. ,, Dhani Ram & Sons, Lahore.
3. ,, Guest, Keen Williams, Calcutta.
4. The Deputy Steel Controller, Calcutta.
5. Messrs. Chimanlal Desai & Company, Bombay.

Associations and others—

1. Engineering Association of India, Calcutta.
2. Karachi Chamber of Commerce.
3. Director of Industries, Punjab.

APPENDIX V

List of witnesses examined by the Board and the dates on which they were examined

Name.	Date.
Manufacturers—	
1. Victor Industries, Amritsar, represented by Mr. Gian Singh Hunjan.	25th and 26th July 1946.
2. The Hind Screws, Delhi, represented by Mr. Ramlal Manaktala.	Do.
3. The Indian Engineers' Corporation, Amritsar, represented by Mr. P. S. Kalsey.	Do.
4. Naraindas Industries, Lahore, represented by Mr. Gidwani.	Do.
Importers—	
1. Abdullabhai Faizallabhai, Bombay, represented by Mr. Mohamedbhai A. Munim.	25th July 1946.
2. Guest, Keen Williams Ltd., Calcutta, represented by Mr. H. L. Forbes Leith.	Do.
Consumers—	
1. G. I. P. Railway, Bombay, represented by Mr. K. M. L'Evine, Controller of Stores.	25th and 26th July 1946.
2. Bombay Port Trust, Bombay, represented by Mr. J. Walker.	25th July 1946.
Associations and others—	
1. Engineering Association of India, Calcutta, represented by Mr. R. D. Vidyarthi.	25th and 26th July 1946.
2. Mukund Iron & Steel Works, Ltd., Bombay, represented by Mr. S. M. Lal and Mr. J. Mackenzie (Suppliers of raw materials).	25th July 1946.
3. Indian Steel & Wire Products Ltd., Tatanagar, (Suppliers of raw materials) represented by Mr. I. M. Pai.	25th and 26th July 1946.

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APPENDIX VI

Statistics relating to the imports of woodscrews

Year.	Quantity of total Imports		Value of total Imports		Average value of total imports per ton			
	Brass or Bronze	Iron or Steel	Brass or Bronze	Iron or Steel	Brass or Bronze		Iron or Steel	
	Tons.	Tons.	Rs. (Lakhs).	Rs. (Lakhs).	Rs.	a.	Rs.	a.
1936-37 ..	80*	1,800*	1·30*	7·95*	1,628	12	442	14
1937-38 ..	125	2,830	2·54	15·66	2,035	0	552	10
1938-39 ..	142·5	2,530	2·66	12·60	1,866	4	498	13
1939-40 ..	113	1,810	1·83	9·41	1,616	4	519	15
1940-41 ..	63	1,760	2·14	17·44	3,393	12	998	1
1941-42 ..	80	2,700	3·17	36·68	3,961	4	1,429	9
1942-43 ..	20	800	0·90	11·55	4,485	0	1,441	13
1943-44 ..	19	960	0·82	13·71	4,366	4	1,435	6
1944-45 ..	32	1,270	1·33	18·84	4,168	12	1,480	4
1945-46† ..	132·5	1,320	2·47	21·70	1,848	12	1,643	14

*Excluding Imports into Burma.

†(For 9 months from April to December 1945).

1 ton = 2,000 Gross* (roughly).

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GOVERNMENT OF INDIA

DEPARTMENT OF COMMERCE

REPORT OF THE INDIAN TARIFF BOARD ON THE CONTINUANCE OF PROTECTION TO THE IRON AND STEEL INDUSTRY

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REPORT ON THE CONTINUANCE OF PROTECTION TO THE IRON AND STEEL INDUSTRY

Reference to the Board.

The Iron and Steel industry has been a protected industry since 1924 when the Steel Industry Protection Act was passed. So far, there have been three main tariff inquiries into the case of this industry in 1924, 1926 and 1934. In between there were three supplementary inquiries in 1924, 1925 and 1930, and five special inquiries for the subsidiary industries in 1926, 1927, 1929, 1931 and 1933. The last main tariff inquiry into this industry was held in 1934, and the scheme of protection sanctioned as a result was to remain in force for seven years till 31st March 1941. Before, however, this protection expired, World War II intervened, and the protective duties enjoyed by the industry were continued by Continuation Acts, the last extension being agreed to by the Central Legislature in April 1946 for a period of one year (till 31st March 1947). On this occasion an undertaking was given by Government that in the meantime the case of the industry would be examined before a final decision was made in regard to the grant of further protection to the industry. In pursuance of this undertaking, the case for examining the necessity, or otherwise of continuing the existing measure of protection to this industry was referred to the Board by Government in their letter No. 134-T(36)|46, dated the 19th December 1946 (Appendix I). This reference was subsequently confirmed in the Commerce Department Resolution No. 28-T(6)|46, dated the 20th January 1947 (Appendix II).

Terms of reference.

2. The request of Government to the Board was to investigate the claim of this industry to continued enjoyment of protection at the existing or at a reduced or enhanced scale for a further period of one year. Government felt that many of the economic uncertainties which had made it impossible to conduct a detailed inquiry during the war were still continuing, and they, therefore, suggested, as an alternative method that the Tariff Board might hold a summary discussion with the representatives of the industry and other interested parties for the purpose of formulating its conclusions. Government desired that in making its recommendations the Board should bear in mind the interests of both the manufacturers and the consumers. As a decision had to be taken well before the commencement of the budget session to enable Government to introduce the necessary legislative measures in time, Government further desired that the Board should forward its considered opinion as regards the degree of protection to be continued to this industry by the end of January if possible.

Method of inquiry.

3. In view of the fact that the time at the disposal of the Board was extremely short, and it was impossible to hold a full-fledged inquiry involving the determination of costs of production and landed costs of import for equation of domestic and foreign prices, it was decided to compile such data as could easily be gathered from Government publications and records and to discuss with the representatives of the industry and

other interested parties as to what action should be taken when the existing protective duties expired on the 31st March 1947. In order to have as comprehensive a picture as possible, the Board decided to invite representatives of the main producers, secondary producers and manufacturers of special items such as, tinplate, wire and wire nails, etc., importers, merchants and certain other individuals having an intimate knowledge of the industry to attend a conference for discussion of the principal issues. A list of the associations and persons to whom invitations for the conference were issued will be found in Appendix III. The main producers, associations and others interested in the subject were also asked to submit their views in writing a few days before the conference was due to meet. In spite of the shortness of the notice, most of the associations and persons invited to this conference were able to attend it, thus giving it a representative character. The conference was held in the Office of the Board in Bombay on the 27th January 1947, and a list of the persons who attended it is given in Appendix IV. On the 28th January 1947 representatives of the main and secondary producers met the Board *in camera* and placed before it their views on special subjects in which they were interested.

Review of proceedings of the conference.

4. (a) *Objects of the conference.*—The Board explained to the conference the purpose for which it had been convened. It was pointed out that since it had not been possible to give sufficient time to the manufacturers and other interested parties to think over the whole problem and come fully prepared with facts and figures in support of their respective views, it was not proposed to go into the details of costs of production, landed costs of imports, equation of prices, efficiency equipment and organization of the industry, these being matters really suitable for a detailed tariff inquiry. The question would have to be considered on general principles, taking into account such salient features as stood out prominently under the present-day conditions. It was pointed out that under the present scheme of protection, the iron and steel industry included rolled steel, fabricated steel, tinplate, wire and wire nails and certain categories of iron and iron products. These were required in considerable quantities by such large industries as structural engineering, housing, ship-building, locomotive, manufacture of machinery, motor-cars, rivercraft, armaments, as well as for numerous other purposes, such as agricultural implements, cans and containers, furniture, window frames, bolts, nuts, rivets, etc. In fact, taking an overall picture of the numerous uses of the products of this industry, it may be said that iron and steel constitute the framework on which the whole industrial structure of a country is built.

(b) *Supply and demand.*—The conference was next asked to consider the question of supply and demand for iron and steel as it affected India at present. It was pointed out that the present production of steel in India was estimated at just over a million tons per annum while according to the most conservative estimate India would need over 2 million tons per annum in 1947 rising to a peak demand of 3 million tons per annum in the course of the next seven years. It was

clear, therefore, that India's main need at the present moment was an abundant supply of steel and that until India was in a position to be self-sufficient which according to the Iron and Steel (Major) Panel would take about seven years, nothing should be done which might impede the flow of this essential material into the country. The diversion of steel from peacetime to war purposes and the great destruction of materials during the war has resulted in an overall world shortage which was likely to continue for the next few years. In spite of the mighty efforts which were being made in the foreign countries to step up production of steel it was extremely doubtful if any large surpluses of steel would be available for export to India, judging from the recent trend of imports which were only a fraction of India's deficit as represented by the difference between her production and demand. Apart from the question of volume of imports which are likely to come into India in the near future the conference was also asked to take into consideration the prices of imported products which in many cases were stated to be much higher than of the corresponding qualities of Indian products.

(c) *Position of the industry.*—The industry was further asked to consider that it had attained its present stature partly under the shelter of protection which it had enjoyed during the last 22 years and partly with the help of bounties received from the State during a part of this period. Even before 1939 when as a result of the scare caused by rumours of war in Europe the prices of iron and steel products rose sharply, the industry had become virtually independent of protection, while during the last seven years, as a result of the abnormal conditions regarding short supplies and lack of competition from abroad, it had been placed in an exceptionally strong and favourable position. During these years it had made large profits and accumulated considerable reserves. The conditions regarding short supplies and lack of competition from abroad were likely to persist for some time to come, and the industry was, therefore, asked seriously to consider whether the time was not ripe for it to stand on its own legs without the support of protection or assistance from the State. If, in spite of the exceptionally strong position in which the industry had been placed, it still felt that it could not dispense with protection, it should be prepared to answer the question whether it was ever likely to be placed in more favourable circumstances for this purpose. The industry could not ignore the view that protection should be regarded as a temporary expedient intended to enable a struggling or distressed industry to survive foreign competition either in the initial stages or during depression and that one of the conditions on which protection could be justified was that the industry would within a reasonable time be in a position to dispense with it. The Conference was informed that when the last extension was agreed to by the Legislature in April 1946, these views were very strongly expressed by several members, and the Legislature agreed to the extension with a good deal of hesitation and reluctance.

(d) *Written replies of the producers.*—The conference was informed that when the Board notified its intention to call this conference, it asked for the tentative views of the three major steel producing

interests, certain secondary producers including the re-rollers and individuals interested in the growth and development of the industry. In the written replies one principal producer had stated that " there was now no justification for the levy of protective duties ", but had urged that " if Government decided on a long term policy of protection for the key industries of the country, and Tariff Board inquiries were ordered, this industry on which the future industrial development of the country depends should be given the first place ". Another principal producer had stated that " the industry required no protection but only safeguards against dumping ". It had, however, been urged that " since foreign competition might revive at any moment, protective duties should remain on the Statute Book but that their levy should be suspended until such time as their imposition again became necessary ". It was further urged that we should not tinker with the protection of a major industry on the basis of abnormal transient circumstances prevailing today, particularly when the removal or reduction of protective duties is unlikely to stimulate competition so as to reduce prices for the benefit of the common man. The conference was also asked to take note of the recommendations in the first report of the Iron and Steel (Major) Panel, on which the principal steel producers were represented, and which after giving due consideration to the question of protection came to the conclusion that the industry should be retained in the list of protected industries, but that power should be taken by Government to keep the protective duties in abeyance until their reimposition in any particular case became necessary.

(e) *Issues for consideration.*—After assuring the conference that the Board had an open mind on the subject and would give every consideration to the views expressed either at this conference or *in camera* and the facts and figures which might be cited therefor, the conference was asked to consider which of the following alternatives or a combination of any of these alternatives would best meet the requirements of to-day :—

(i) Maintaining the present protection for a further period of one year and stipulating the institution of a Tariff Board inquiry into the industry in the meantime.

(ii) Keeping the industry on the list of protected industries, but holding in abeyance, wholly or partly, the protective duties on some or all products of the industry through an executive order under the Sea Customs Act or the Indian Tariff Act subject to the institution of a Tariff Board inquiry whenever the need for the reimposition of any of these duties arose.

(iii) Holding that under the present circumstances the industry does not require the continuance of protection, which may therefore be terminated, leaving it to Government to impose such revenue duties as might be decided upon on budgetary considerations.

(f) *Burden of proof on the industry.*—The industry was asked to bear in mind the fact that if it asked for continuation of protection in one form or another, even to the extent of keeping its name on the list of protected industries without imposition of any protective duties, the burden of proving that further extension was necessary under the conditions of to-day rested heavily upon it. Such proof must be based upon economic rather than upon sentimental or psychological considerations, and should be justified broadly on the following grounds :—

(i) that there exists competition against which the indigenous industry requires protection ;

(ii) that the protection required is of a temporary duration and will be dispensed with within a reasonable period ;

(iii) that the cost to the consumer arising from protection is reduced to the minimum ; and

(iv) that the industry is run on sound business lines.

It was pointed out that even if as a result of this inquiry protection was removed, it would not debar the industry from asking for it at any future date, should the circumstances change materially and should the industry, regarding the vital nature of which there were no two opinions, be threatened by competition from abroad. The industry was asked not to lay too much emphasis on the point that Government machinery was slow, and that the pace of competition might outstrip Government inquiry and action. Such conditions might have prevailed in the past, but it was pointed out that quicker action could confidently be expected in the future, and that, in any case, no competition was likely to overtake the industry within six months, which was a sufficiently long period for the tariff machinery to be put into operation and Government to take action in the matter.

(g) *Consumer's interests.*—The industry was asked to bear in mind the weight to be attached to the interests of the consumer, and to suggest, if possible, ways and means by which the iron and steel prices could be reduced, thereby affording the much-needed relief to the consumer who had been starved of iron and steel products during the last seven years. It was pointed out that the steel position was still very tight and the main problem was one of supply to meet the growing demand. In view of this, even though the imports were a fraction of the pre-war volume and even though bigger imports might not be expected in the near future, they would afford a certain amount of relief, however small, to the hard-pressed consumer.

(h) *Special points for consideration.*—The conference was further asked to apply its mind to the consideration of some special points. The first point was that if the industry failed to make out a case for continuation of protection in any form and if the existing protective duties were replaced by revenue duties, what effect such a step would have upon the volume and prices of the varieties imported from different countries. It was asked to consider whether the substitution of protective duties by current revenue duties would help in increasing the

flow of imports into the country, or whether it would create an anomalous situation in which the position regarding the supply of certain essential types of materials might become even worse than at present. The second point which the industry was asked to consider was the question of duties on special items such as alloy, tool and special steels as well as secondary products. It was mentioned that some of these products were the subject of special inquiries which were pending before the Board, but that in the meantime, the question should be considered in a general way as to what exceptions, if any, should be made for special items of removal of protection to the iron and steel industry was decided upon. It would be necessary in this connection to consider, also in a general way, the question of co-relating the prices of secondary products in the light of the findings in regard to the primary or semi-finished materials and whether the institution of a special inquiry for this purpose was called for.

Industry's case for protection.

5. (a) *Primary producers.*—Opening the case for the industry, Sir Ardeshir Dalal, speaking on behalf of Tatas, said that as early as 1937 the Chairman of Tatas had stated that so far as they were concerned they did not need any protection except against dumping. They still adhered to that view, but were of the opinion that the present scheme of protection should be maintained. They felt that the present abnormal time was not a suitable occasion for an elaborate inquiry and that protective duties made no difference to the price of iron and steel products to the consumers. They further felt that removal of protection would involve Government in loss of revenue, which was badly needed for undertaking many schemes of reconstruction. Sir Ardeshir also stated that if the industries were to be developed on a large scale and in a speedy manner, the old principals of protection would have to be changed and he hoped that the new Government would revise the principles on which protection was given. As regards foreign competition, he stated that though in many cases it was practically non-existent at the present time, yet Australia was an unknown factor, as owing to the special measures taken by the Australian Government to help their iron and steel industry, that country might be in a position to offer competition. Although it was an unknown factor at the moment, it could not be completely ignored as a source of potential danger. He further stated that if, after considering the merits of the case, it was decided to terminate protection granted to the iron and steel industry, the case of special items, such as, alloy, tool and die steels and of high silicon electric sheets, the manufacture of which had been established during the war, should be examined separately. Sir Padamji Ginwala, speaking on behalf of the Indian Iron and Steel Co. and the steel Corporation of Bengal, also pleaded for the continuation of protection to the iron and steel industry. In this connection, he drew the attention of the Board to the estimate made by the Iron and Steel (Major) Panel in regard to the capital investment required for future developments, and observed that if protection was now removed, it might jeopardise the future development of this industry as private capital might become shy. He further observed that though the older units which had en-

joyed protection for a number of years might no longer require it, the more recent units and those to be established would stand in need of protection on account of higher overheads and for want of sufficient technical experience. He observed that while the Board could recommend abolition of protection on the merits of the case as it stood today, it could not recommend any reduction in duties without instituting a thorough inquiry into the iron and steel industry. He felt that the time was ripe for such a full inquiry particularly if the interests of the consumer were to be protected and ways had to be devised to achieve the expansion of the industry. He also advocated that a system of pooling of prices as was done in Australia should be brought into force as early as possible to benefit the consumer. The plea for continuation of protection was also supported by Mr. Balkrishna representing the Mysore Iron and Steel Works.

(b) *Other interests' case.*—(i) Mr. Pai on behalf of Indian Steel and Wire Products wanted the present protection to be continued, as he was apprehensive that imports of wire and wire nails from abroad at competitive prices might come in the near future. In any case, he urged an inquiry to be held immediately for certain specialised types of wire such as high carbon wire and spring steel wire, which had been developed during war time.

(ii) Mr. Rakshit, speaking on behalf of re-rollers and foundry owners, wanted the institution of an immediate inquiry into the condition of the secondary producers, who were not receiving sufficient material at economic prices to keep their units running, and also to plan further development of the iron and steel industry. There was a great insufficiency of pig iron and according to him the manufacturers of cast iron pipes and fittings were not getting a fair deal from the main producers who were always looking to their individual profits rather than to the interests of the country as a whole. The request for the institution of an immediate inquiry was also supported by the representatives of cast iron industry and other secondary producers, who complained that they were not getting sufficient supplies at reasonable prices to keep their factories going.

(iii) The representative of the tinplate industry, Mr. Ainscough, pointed out that the manufacture of tin-plate in India was handicapped on account of the fact that his chief raw materials, e.g., tin and tinbar, cost him more than what they cost to the manufacturers in U.K. He agreed that at present the tin-plate industry did not require any protection as imports were not coming in any appreciable quantities, but pleaded for the continuance of the protection on account of the abnormal conditions prevailing and also as he expected severe competition within eighteen months to two years' time. He was of the opinion that an inquiry should be instituted in about two years' time when he expected the conditions to return to normal. Mr. Parkinson representing the Metal Box Co., stated that tinplate prices had been increasing steadily, and he therefore urged the removal of duty as it might help in reducing tin-plate prices.

(iv) Mr. Hain speaking on behalf of the fabricated steel industry admitted that at present the industry was holding its own against foreign competition, but pleaded for the continuation of protection with the duties in abeyance. His reason for this demand was that it was not possible under existing conditions to forecast the trend of the prices of steel sections, rivets, plates, etc., which determined the cost of production of fabricated structural steel. He admitted that at present the demand for fabricated steel was greater than the country's production and that they could not meet this demand for want of adequate steel supplies. Mr. Sitwell, representing Messrs. Braithwaite Burn & Jessop Co. Ltd., complained of certain tariff inequalities as a result of which fabricated articles were shown as machinery for which a lower revenue duty was charged, and suggested that these tariff inequalities should be removed, as they imposed a handicap on the Indian manufacturers of fabricated structural steel. He cited the example of sluice gates which would be required in increasingly larger numbers owing to the expansion of irrigation works. In this connection, Sir Padamji Ginwala pointed out that integrated concerns in U.K. might be in a position to sell fabricated steel products at competitive prices in the Indian market as they were able to obtain their supplies of raw materials at lower prices. If such a position arose, it would adversely affect the rolled steel industry, as the demand for rolled steel would be correspondingly less.

(v) Mr. J. C. Mahindra, speaking on behalf of consumers, pointed out that the primary consideration which should guide the Board in its deliberations is the question as to what is the production of steel in the country and what is the consumption. If the production was very much lower than the consumption, then it was essential that imports of a certain amount of steel from outside should be allowed to come into the country and that if the revenue duties were higher than the protective duties, the scale of duties should be reduced in order to encourage the flow of imports and to enable the consumer to obtain steel products at a lower price.

Progress of the Iron & Steel Industry since 1934.

6. (a) *General.*—The progress made by the Indian Iron and Steel Industry upto 1934 when protection was granted for a further period of seven years, has been described in the previous Tariff Board reports. At that time, the Tata Iron & Steel Company was the only steel producing unit in the country. Soon after, two more primary steel producing units were established in India, viz., the Mysore Iron & Steel Works and the Steel Corporation of Bengal. In addition, a large number of re-rolling mills were established in the country, and several of them started manufacturing steel from scrap by the electric process. We give below a brief review of the progress made by the industry since 1934 :—

(b) *The Tata and Iron Steel Co., Ltd.*—Taking advantage of the renewal of protection for a further period of seven years the Tata Iron & Steel Co., went ahead with its plan of expansion and spent a sum of about Rs. 8½ crores on its development programme, which included the erection of a new Control Research Laboratory, while considerable improvements and additions were made to plant and machinery year by year. After

1935 there was a substantial increase in output in all the departments. The figures of production and also the types of products made by the Company from year to year are given in Appendix V. The classification under the various heads of the total output of steel gives an idea of the lines in which the Company has specialised. The main lines of development of the Tata Iron & Steel Co. after 1934 are as follows. In 1933-34 a new sheet mill was installed, which contributed substantially to an increase in the total output and quality of the sheets produced. In the following year the production of high tensile steel also commenced. In 1935-36 a second sheet mill came into operation and a new contact process sulphuric acid plant commenced working. In the same year one of the blast furnaces was entirely rebuilt and provided with new stoves, raising its capacity to about 750 tons per day. In the following year a normalising plant was brought into operation at the plate mill and in 1937-38 a new power plant was completed. In 1938-39 construction started of a large new blast furnace, replacing the oldest blast furnace of the Company in which pig iron was being manufactured since 1911. A new large gas cleaning plant was also built with this new furnace. In 1939-40 the new blast furnace, which is one of the largest and most up-to-date in the world, started working. In the same year a third mechanised unit of sheet mill was brought into operation. The manufacture of special steels required for war purposes was developed and several new types of special steels were produced in 1941-42. The benzol plant for the recovery of motor spirit and toluol and the steel tyres and axles plant were also put into operation in the same year. The latter plant has sufficient productive capacity to meet the requirements of Indian railways in respect of wheels, tyres and axles. In 1942-43 another blast furnace was rebuilt and an acid steel making plant was put into operation. A new composition armour plate steel and various alloy steels were produced in that year. Experiments were successfully completed for the manufacture of ferro-vanadium in the same year. Special quality sheets such as alloy-steel, high silicon and lighter gauge sheets were rolled at the sheet mills in 1944-45. In the following year the Company was able to manufacture high quality sheets for deep drawing work and enamel ware, panel plate quality sheets for automobile bodies, furniture, cycle parts, hinges etc., and armco iron, titanium steel and tungsten steel sheets. In all these new developments the Control Research Laboratory played an important part, and enabled the Company to embark on an elaborate programme for the manufacture of a wide range of products required during the war, such as armed vehicles, armour piercing and high explosive cells, gun carriage mountings, service helmets, parachute harness equipment, machine tools, mint dies, surgical instruments, etc.

(c) *The Indian Iron and Steel Co. and the Steel Corporation of Bengal.*—The Indian Iron and Steel Company with the Iron Works at Asansol was amalgamated with the Bengal Iron Company with its plant at Kulti in 1936. The capacity of this amalgamated company is 8,50,000 tons of pig iron and 1,00,000 tons of cast iron pipes, sleepers and general iron castings per annum. The actual pig iron production of the Indian Iron and Steel Company was 6,45,000 tons in 1939-40. The Steel Corporation of Bengal is an associate company of the amalgamated Indian

Iron and Steel Company, and was formed in 1937 for the manufacture of steel from pig iron produced by the Indian Iron and Steel Company. The steel plant of the Steel Corporation has been set up adjacent to the blast-furnaces of the Indian Iron and Steel Company near Asansol, and the Corporation takes hot metal from the latter Company under an agreement. The capacity of the steel works is about 2,00,000|2,50,000 tons per annum. It produces structurals, heavy rails, sheets (black and galvanized), bars and spring steel and tool steel to certain specifications. They are installing a Duplex plant which is expected to come into operation in the near future and will increase the capacity of the Corporation to nearly double its present tonnage. The design and lay-out of the plant will permit further expansion if and when necessity arises. The Indian Iron and Steel Company also proposes to re-model its works at Kulti and towards this end a modern spun pipe plant at an estimated cost of Rs. 60 lakhs has been installed in place of the old foundry.

(d) *The Mysore Iron and Steel Works, Bhadravati.*—This is the third main producer of iron and steel in the country. About the year 1920 the Mysore Government erected the works with a productive capacity of 28,000 tons of pig iron per annum. Some surplus of pig iron was left over the production of cast iron pipes and to take care of this surplus a steel plant was added in 1934. It is understood that the maximum capacity of the rolling mills is 28,000 tons of light structurals and bars. There is also a rod and strip mill with a capacity of 5,000 tons of hoops and 5,000 tons of rods. To meet wartime and post-war demand for certain products not previously manufactured in India, and an open hearth and an electric furnace have recently been added. As there is not enough pig iron and scrap to utilise the surplus capacity for the manufacture of steel, it is proposed to instal an electric pig iron furnace. They have also started the manufacture of ferro-silicon and intend to produce other ferro-alloys. They manufacture alloy tool and special steels as well in their electric furnace.

(e) *Re-rolling Mills.*—There were only a few re-rolling mills at the time of the 1934 inquiry, but within the following five years about 50 re-rolling mills were established in India at various centres. These mills used to roll merchant bars from imported steel billets or steel scrap, their total output just before the war being about 50,000 tons per annum. In 1940 they formed themselves into an Association called the Re-rolling Mills' Association to protect the interests of the member mills. In the latter part of 1941 the war demand for steel became so heavy that the whole production of the re-rollers was bought for military purposes. Taking advantage of the abnormal war demand for special steel products the better equipped mills took up the manufacture of special steel products. In 1942 the re-rolling industry thrived very well, but from 1943 onwards it had to face various difficulties such as shortages of coal and billets. The re-rolling mills have been producing mostly merchant bars which are required for agricultural implements, house-building purposes and various other industrial uses. A hoop iron mill was also erected at Cownpore just before the war by one of the re-rolling mills which had an electric furnace for making steel ingots from

scrap. From these ingots about 6,000 tons of jute baling hoops per annum were produced during the war years. A great fillip was given to the steel castings industry during the war, and at present the country has enough capacity to meet the full demand for steel castings from various industries. Most of these castings are made from steel produced in electric furnaces. There are in all 9 electric furnaces installed by re-rollers and secondary steel producers at various places. Although the quantity of steel produced from these furnaces is not large, they have helped to increase the capacity for high quality steels.

Estimated Indian Demand.

7. The probable demand for iron and steel has been dealt with comprehensively in chapter I of the First Report of the Iron and Steel (Major) Panel. Although it is not easy to make a precise estimate of the demand for the next few years, the Panel's estimate is as follows :—

	Tons.
Railways	500,000
Organized steel processing industries	300,000
Consumer goods	250,000
Development schemes of Central, Provincial and State Governments	250,000
Private industrial development schemes	100,000
Industrial maintenance and packing	250,000
Maintenance requirements of public utility undertakings	200,000
Requirements of the general public	250,000
Steel Total	2,100,000
Pig iron	300,000

Thus, the total minimum requirements in the next two or three years would amount to over 2 million tons per annum. It must, however, be remembered that these estimates do not take into consideration many large schemes of industrialisation, which are at present under consideration by Government, which, if completed, will absorb additional large quantities of iron and steel products.

Indian production.

8. The output of iron and steel products in India from 1935-36 to July 1946 is shown in Appendix VI. This statement also shows the production of various types under the four main heads, namely, rolled products, iron and steel castings and manufactures, wire and wire products and tinplate. The position regarding the total production of iron and steel may be summarized in the following table, which also shows the percentage increase over the 1933-34 production in the case of pig iron, iron castings and manufactures, steel ingots and finished steel and over the 1938-39 production in the case of semis.

Production of Iron and Steel in India—per cent. increase.

	1933-34 Tons (000)	1938-39 Tons (000)	%Increase*	1945-46* Tons (000)	%Increase
Pig iron	1,109	1,576	+42	1,489	+34
Iron castings and manufactures	68	88	+29	122	+79
Steel ingots	721	977	+36	1,313	+82
Finished steel	551	726	+32	949	+72
Semis	..	791	..	1,020	+29†

*Over 1933-34 production.

†Over 1938-39 production.

From the production statistics given in Appendix VI, we note that the total production of steel touched the highest level in 1943 when it was 1.13 million tons. Since then it has reached a more or less stationary stage and even the latest figures for the first four months of 1947 do not show much improvement. We may, therefore, conclude that the present production of finished steel of all classes including those produced in the Ordnance factories and in electric and other small furnaces and steel rolled from scrap would not exceed 1.2 million tons per annum. This production may just meet the demands of the country based on pre-war level, but as we have shown above owing to the industrial expansion in the country during this period, the demand for iron and steel products has increased to over 2 million tons per annum, without taking into account the heavy back-log of the war period It is clear, therefore, that the present production represents about 50 per cent of the total requirements of iron and steel products in the country. With certain additions, which will take about three years to be put into effect, this output can be increased to 1.7 million tons of steel, leaving still a gap of 0.5 million tons between estimated supply and demand.

Necessity of imports.

9. We have seen in paragraph 7 that at a conservative estimate India's requirements of iron and steel in the next few years will be in the neighbourhood of 2 million tons per annum. We have also seen in paragraph 8 that the present output of the Indian factories at their maximum works capacity is not more than 1.2 million tons per annum, but that if certain additions are made to these factories, this output can be increased to 1.7 million tons per annum. These additions, however, cannot be carried out immediately for want of capital goods but with favourable circumstances will take about three years to materialise. In the meantime, therefore, there is a gap of about a million tons between India's production and her requirements which can be reduced to about half a million tons provided extensions of the existing units are begun immediately. It is clear, therefore, that if the requirements of organised industries, railways and public utility undertakings are to be met and India's industrial expansion is to be carried out unhampered. the existing gap between demand and production will have to be filled by imports from abroad.

Position of the Steel industry in other countries.

10. We will now take a bird's-eye view of the present-day position of the production of steel in other countries to find out whether it would be possible to meet India's requirements by importing steel from those countries in the next few years, and whether the exporting countries are in a position, during this period, to offer any appreciable competition to the Indian iron and steel industry, in the home market. Before the last war, the principal steel producing countries of the world according to the Statistical Publications of the League of Nations, were the United States of America, Germany (including Saar and Austria), U.S.S.R., Great Britain, France, Japan (including Korea), and Belgium, in the given order. In 1939 these countries were responsible for about 90 per cent. of the total production of steel in the world, the remaining 10 per cent. being produced by all the other countries put together. After the war, the position has materially changed, especially in respect of Germany and Japan, and the present position may be summarised as under :—

(i) *U.S.A.*—The yearly output of iron ore in the pre-war years was subject to wide fluctuations ; for example, in 1932, about 10 million tons of ore were mined whereas in 1929 over 73 million tons were mined. In the years immediately preceding the war, however, the output of ore mined in U.S.A. rose sharply from about 54 million tons to over 90 million tons per annum. The steel production in U.S.A. since 1934 is shown in the following statement :—

United States Steel Output.

Year	Output in tons (000s omitted)
1934	26,020
1935	29,182
1936	38,184
1937	51,637
1938	31,752
1939	52,799
1940	66,983
1941	82,839
1942	86,002
1943	88 836
1944	80,037
1945	79,202
1946	66,000

It will be seen that the steel production in U.S.A. had been rising steadily before the war and that during the war, owing to the heavy demands of the armament industry the production of steel rose sharply from nearly 53 million tons in 1939 to as high as nearly 89 million tons in 1943. But, since the termination of the war, it is reported that there

has been a sharp decline in steel production owing to scarcity of coal and man-power and labour troubles and the annual production of steel has dropped to about 66 million tons in 1946. It is reported that both to meet the requirements of the various consuming industries and interests in U.S.A. and to provide for the expansion programme, the present production of iron and steel is not adequate and efforts are being made to increase the production to the level which it attained during the war. It is not certain how far these efforts will succeed, but in any case it is clear that even if the steel production in U.S.A. went beyond its present tonnage, a large percentage of it will be absorbed in satisfying the country's own demands, while any exportable surplus, which may be available, would, in all probability, be diverted to the rehabilitation of those countries in Europe whose industrial plants were badly damaged in the war. It is, therefore, extremely doubtful if any large supplies of iron and steel products, except certain specialised items, would be available for export to India in the next few years.

(ii) *Germany.*—Although the German iron and steel industry received a tremendous setback after the first world war, it made a remarkable recovery in the reconstruction period after 1919 as a result of which its production went up to about 15 million tons of pig iron in 1929. It is stated that during the four years preceding the invasion of France, German production of iron and steel had increased to well over 20 million tons per year, and that just before the war Germany (including Austria and Saar) ranked second in the steel producing countries of the world. Whatever might have been the position before the outbreak of World War II, it is quite clear that as a result of the damage caused by the war and in view of the decision of the Allied Control Council in Berlin in January 1946 to drastically cut down Germany's steel production restricting it to a total production not exceeding 5.8 million tons, Germany is out of the picture as a country from which any exports might be expected or competition might be feared for many years to come.

(iii) *U.S.S.R.*—Although U.S.S.R. was the third largest steel producing country in the world before World War II, it never entered the Indian market as a serious competitor. Just before the war, the production of pig iron in U.S.S.R. was stated to be about 15 million tons per annum but, as is well known, Russian industrial establishments suffered terrible damage in the war and it is certain that Russia will require all the steel she can produce for the rehabilitation of her own industries. We may, therefore, rule out U.S.S.R. as a country from which any exports to India might be available or from which any competition might be feared.

(iv) *Great Britain.*—Great Britain has extensive deposits of iron ore which, combined with other favourable factors, made it the fourth largest steel producing country in the world before World War II. It is stated that immediately before the war her production of iron and steel stood at about 11 million tons per annum. Unlike U.S.A., the iron and steel industry in U.K. did not make any great progress during the war

years. British production remained fairly steady during the last few years, as will be seen from the following figures of production of steel from 1938 to 1946:—

Year.	Million tons.
1938	10·397
1939	13·000
1940	9·875
1941	12·312
1942	12·762
1943	13·031
1944	12·142
1945	11·826
1946	12·690

Plans are now afoot to increase her production to nearly 15 million tons per annum. However, on account of coal, wagon and man-power shortage, the works are not able to realize the targets fixed for them, and the plans for the expansion of the iron and steel industry had not made much progress so far. It is clear, therefore, that until the plans for the expansion of this industry to the projected target of 15 million tons per annum are realized, Great Britain will hardly be in a position to spare from her own production any large surpluses of steel for export to other countries.

(v) *France.*—From the standpoint of known iron ore resources, France ranks first in Europe and second to the U.S.A. among the nations of the world. The French output of iron ore increased greatly after the first world war exceeding in some years 40 million tons per annum. In fact, from 1931 to 1935, French production of iron ore even exceeded that of the United States. More than 50 per cent. of the ore, however, was exported to other countries, Belgium and Luxemburg receiving the largest share and being followed by Germany, Netherlands and U.K. It is stated that in 1934, the French production of steel was of the order of 10 million tons per annum, but in 1946, as a result of the ravages caused by war, it had come down to 4.2 million tons. Efforts are being made to raise the French production of steel to pre-war levels, and in fact the target of 15 million tons per annum has been fixed for the post-war years. It is clear, however, that practically all the steel which France will be able to manufacture during the next few years will be required for the rehabilitation of her own industries and that very little surplus will be available for export to other countries.

(vi) *Japan.*—Pre-war Japan was the sixth largest producer of steel in the world. Her iron and steel industry made remarkable progress as will be seen from the following statement which gives the Japanese production in 1917, 1926 and 1943:—

Year.	Tons.
1917	750,000
1926	1,500,000
1943	8,770,000

World War II, however, has given a hard blow to the iron and steel industry of Japan and the U.S.A. Reparations Commission is reported to have restricted Japan's annual iron and steel production to 2.75 million tons which is less than one-third of the 1943 production. The U.S.A. administration has also recommended the elimination of Japan's special steel production capacity and the allocation of stocks of such steel as are not suitable for peace-time requirements towards reparations. We may, therefore, safely assume that not only no exports will be available from Japan for some years to come, but that Japan as a potential competitor has been eliminated.

(vii) *Belgium.*—Belgium has the natural advantages of possessing coking coal, a little domestic ore and well-developed sea ports, but it has to depend upon other countries for its supply of iron ore to meet the full requirements of her iron and steel industry. Her dependence upon foreign ores may be gauged from the fact that between 1934 and 1938 an average of only 183,000 metric tons of iron ore was mined, while in the same period the output of pig iron was 3 million tons per year. During the war, the Belgian iron and steel industry suffered considerable damage, but since then, great efforts have been made not only to place the industry back upon its former footing, but even to excel the production of pre-war years. While the output in 1945 was 1.16 million tons, it rose in 1946 to 4.4 million tons. Since the local markets are small, the Belgian iron and steel industries have been developed largely on the basis of export trade, which must amount to nearly 70 per cent. of her total output if her mills and men are to be gainfully employed. It is to be presumed, therefore, that exportable surpluses of iron and steel might be available from Belgium if they can be marketed at competitive prices. Belgium, which was one of the keen competitors of the iron and steel industry in India before the war, may, therefore, again be in a position to enter this market but it remains to be seen, if, during the next two or three years, Belgium will be able to offer any severe competition to the Indian iron and steel industry.

(viii) *Australia.*—During the past few years, the Australian iron and steel industry has made very remarkable progress. The Australian production just before the World War II was stated to be 982,000 tons pig iron and 1,210,000 tons steel ingots and castings while in 1943 it was reported to have reached 1.6 million tons of pig iron and 1.5 million tons of steel. It is reported that the Australian Government has undertaken special measures to help the industry to keep down the costs of manufacture. The representatives of the Indian iron and steel industry present at the conference stated that Australian products might offer competition in the Indian market. In the absence of any detailed statistics, we are unable to predict the extent to which Australia may enter the Indian market, but it is possible that certain quantities of imports may be available from Australia.

(ix) We need not discuss in any detail the present and future position of iron and steel industry in other countries such as Holland, Sweden, Poland, Spain, Luxembourg, etc., as from all indications it is clear that their entire production at least for the next few years will be required mainly for the rehabilitation of industries in Europe.

Improbability of severe competition from imports.

10-A. Taking the picture as a whole, we come to the conclusion that, although strenuous efforts are being made to increase steel production all over the world, the present output is considerably short of the world demand. The total production of the world in 1946 is still far below that of 1939 as seen from the following figures:—

World production of seed.

Year.	Tons.
1939	142,314,000
1945	129,422,000
1946	121,590,000

The unsettled political and economic conditions prevailing in many parts of the world, the shortage of transport and man-power, labour troubles, etc., are standing in the way of the realisation of the targets fixed in the different countries. It is, therefore, extremely doubtful if the foreign countries will be able to offer any severe competition to the Indian iron and steel industry in the next few years. It might be possible to obtain certain quantities of imports from these countries, but it is almost certain that in many cases such imports will be at prices higher than those at which the Indian manufacturers can market their products of similar quality. Therefore, while these imports might be tolerated and may even be welcomed in order to fill the gap between India's present production and requirement for industrial development, they are not likely to offer any competition to the Indian iron and steel industry. And this position is admitted by the representatives of the home industry.

Imports of steel into India.

11. During the war, import of steel material came under the Iron and Steel Control (Distribution) Order. Under this Order imports were not allowed to private parties, but were obtained on Government account to bridge the gap between the indigenous production and the estimated Indian requirements. This procedure was continued for some time after the cessation of hostilities, but in April 1946, owing to the acute shortage of iron and steel in India, it was decided to allow imports by private parties from the sterling areas by issuing import licences. However, in November 1946, it was found that the sterling areas were not in a position to supply any appreciable quantity of iron and steel products. In the meantime, some relaxation of exchange control having taken place, the financial authorities informed the Steel Controller that too much regard need not be paid to currency considerations in the issue of import licences. It was, therefore, decided that imports should be allowed from any country which might be in a position to supply these materials at reasonable prices. The present basis for the issue of import licences is that an applicant should be able to produce the original offer of availability from the exporter or the manufacturer abroad and that the prices at which the material is offered should not be very much higher than its controlled price in India. For this purpose, the Iron and Steel Controller has decided that licences may be issued in cases where the price of the foreign product does not exceed the control price by about Rs. 100 per ton. In spite of the relaxation in the control of import of iron and steel

and the facilities given by Government to obtain these goods from non-sterling areas, the volume of imports has not increased appreciably, and is still far below the quantities required to fill the gap between India's production and requirements. This will be seen from the following table which summarises the position regarding imports in 1938-39 and 1945-46. This table also gives for purposes of comparison the quantities of iron and steel products which are not covered by the present scheme of protection imported into India in 1938-39 and 1945-46. In both cases, the percentage increase or decrease accruing in 1945-46 as compared with the 1938-39 figures is also shown.

(1) *Protected varieties.*

Year	Iron *	Steel ††	Iron and steel †††	Total
	Tons	Tons	Tons	Tons
(*a*) 1938-39	1,256	27,975	1,34,536	1,63,767
(*b*) 1945-46	213	2,910	1,31,751	1,34,874
%Increase or decrease of (*b*) as compared with (*a*)	—83·04	—89·60	—2·07	—17·64

(2) *Unprotected varieties.*

(*c*) 1938-39	7520	17,413	91,696	1,16,620
(*d*) 1945-46	..	70,847	42,036	1,12,883
%Increase or decrease of (*d*) as compared with (*c*)	..	—306·36	—54·16	—3·2

In considering the above table, it should be remembered that, as explained previously, India's requirements of iron and steel are considerably greater now than they were in 1938-39. In that year, the imports given in the above table were enough to meet the deficit between Indian production and demand, while in 1945-46, owing to the pent up demand of the war years as well as the greater needs of the country, a much larger volume of imports was required. Bearing these facts in mind, it will be seen that as compared with 1938-39 the imports of protected varieties have gone down by 83.04 per cent. in the case of iron, and 89.6 per cent. in the case of steel, while the imports of iron and steel have gone down by only 2 07 per cent. The latter varieties for which imports have been maintained at practically pre-war levels comprise pillars, girders, bridge work, bolts and nuts, fencing materials, nails, pipes, railway track material and fittings. Some of these items are not at present manufactured in India in sufficient quantities while the others were badly needed for the new factories which have come into existence during the war or for the maintenance and expansion of India's public utility services.

*Manufactures of cast iron and wrought iron such as pipes, bolts and bars, etc.

††Manufactures of steel, such as cast steel, tool steel, spring steel, bars, etc.

†††Manufactures of cast iron, wrought iron and steel not known under * or ††.

In the case of the unprotected varieties, the quantity of steel imports has increased considerably over the 1938-39 volume. This, however, has been mainly due to the imports of blooms, billets, and slabs for the secondary producers since they were not able to get their full requirements from the limited indigenous production. It should be noted in this connection that there is no protective duty on blooms, billets and slabs, but a revenue duty equal to the excise duty levied on the indigenous production. Since the Indian production of billets, blooms and slabs is not enough to meet the requirements of the secondary producers, there should be no objection to their importation from abroad, if available, until such time as India's production can be stepped up to meet her full requirements. In fact, the fear expressed by several people present at the conference was that, if the foreign countries could spare any steel from their own requirements, they would rather export it in the form of finished products such as, sheets, merchant bars, angles, channels, plates, etc., than in the form of billets, blooms, and slabs. It was also stated by the merchants and the importers present at the conference that in many cases their efforts to import iron and steel materials in any appreciable quantities had not met with much success and that the quantities offered to them were a mere fraction of their demands.

Comparison of prices of foreign and indigenous products of the same quality.

12. We have seen above that the iron and steel position in the principal producing countries is so tight that we cannot expect these countries to have much exportable surpluses which could be diverted to India. We have been informed that in spite of the relaxation in controls, the imports of iron and steel products, especially of the protected varieties, have not shown any appreciable increase since the termination of war. Apart from the question of quantities of iron and steel which might be available from other countries, we have to consider the prices of these products ruling in those countries as well as their export prices and compare them with the Indian prices. It has been very difficult to collect this information for the continental countries, but we were able to collect some data regarding the home prices of certain qualities of iron and steel in the United Kingdom and South Africa, of as recent a date as December 1946. These prices, together with the Indian controlled prices for purposes of comparison, are shown in Appendix VII. It will be seen from a comparison of the U.K. and the Indian prices that in many cases they are very nearly equal; in some cases, the U.K. home prices are slightly higher while, in others they are slightly lower than the Indian prices for the tested varieties The U.K. prices, it should be noted, relate to the domestic market whereas it is well-known that in many cases higher prices are charged for export purposes. In any case, an allowance has to be made for insurance and freight which would certainly raise the prices of these products imported into India from U.K. by an appreciable amount. In view of the fact that at the conference it was stated that Australia's home prices were considerably lower than those prevailing in other countries, we also made an effort to obtain information regarding the Australian prices. These prices relating to pig iron, structural steel and steel bars prevailing in Australia, U.K. and U.S.A. in 1936 and 1946 are given in Appendix VIII. A comparison of the domestic prices

prevailing in Australia and U. K. in 1946 shows that the Australian prices are in each case considerably lower than the U.K. prices. For example, whereas the price of pig-iron in Australia is Rs. 61.5 per ton, in U.K. it is Rs. 112 per ton. Similarly, the price of structural steel in Australia is Rs. 135 per ton as against Rs. 206 per ton in U.K. The Australian prices of pig-iron and structural steel are also lower than the prices of these products in the U.S.A. though the margin of difference is much narrower than that between the Australian and the U.K. prices. All these prices, however, relate to the domestic markets, and in many cases are lower than the export prices charged by these countries for foreign markets. Very valuable information regarding the c.i.f. prices of several qualities of steel, which might be imported if available from U.K., U.S.A., France and Belgium, was furnished by Tatas in their written memorandum, and is reproduced below along with the retention prices received by the main Indian producers for purposes of comparison.

Present c.i.f. prices (Rupees per ton)

	U.K.	U.S.A.	France*	Belgium	India Retention (*) Tested Untested.	
Bars	286	246	232	385	221	211
Structurals	2 3	222	258	299	221	211
Plates	2 3	235	276	370	221	208
Black sheets	393	2 3	3-9	499	252	241
Galvanized sheets ..	482	356	446	777	319	319

This table shows that the prices charged by the Indian producer at present are considerably lower than the prices at which these materials should be obtained from abroad even assuming that they are landed in India without paying any duty. It is clear from a comparison of the c.i.f. prices of goods imported from U.K. and other countries that even if these imports are received in any appreciable quantities, they would not offer serious competition to the Indian industry, and that, therefore, until the foreign countries are in a position to reduce considerably their export prices or resort to dumping, foreign competition will not assume threatening proportions.

Examination of the industry's claim for continuance of protection.

13. We now examine in some detail the plea made by the industry for the continuance of protection. The industry's representatives stressed the fact that even though the protective duties had become ineffective and inoperative as a result of the rise in the price of iron and steel products in the foreign countries which eliminated competition, the industry should be retained on the list of the protected industries, although the protective duties might be held in abeyance. We were not able to accept this point of view, as it would have given the industry merely the name but not the substance of protection, and as it would have resulted in a loss of revenue to Government without

(*) Home prices plus freight and insurance

* Round figures.

giving any corresponding benefit to the industry. The second argument advanced by the industry that this inquiry should not have been held at the present time when the conditions were so abnormal also did not appeal to us. The representatives of the industry, who based their plea for continuation of protection on the ground of abnormal times were unable to give any forecast as to how long these abnormal conditions would continue, and in our opinion, when protection is unnecessary on economic grounds and when imports of certain quantities of iron and steel are urgently required for the rehabilitation and expansion of our industry, the plea of abnormal conditions, which might continue for several years to come, loses much of its force. The third argument advanced by the industry was based upon the possible effect of removal of protection not only upon the conditions of the recently established units, but also on the expansion of the industry in the future to meet India's full requirements in iron and steel. It was suggested that whereas the older units had enjoyed the benefits of protection since 1924 and had thus been able to put their house in order and had accumulated large reserves, more recent units had not had the same benefit and were therefore in a somewhat weaker position to meet such competition as may arise in the future. It was also suggested that if protection was now removed from this industry, it might have an adverse effect upon its future expansion and thereby retard its growth and development as a result of which India may not be able to expand her industry so as to become self-sufficient in the matter of iron and steel requirements. We must confess that we were not greatly impressed by the force of these arguments. So far as the more recent units are concerned, it is true that they have not enjoyed the same benefits of protection as the older units, but on the other hand, we must take into account the fact that they came into existence with more up-to-date plant and machinery and are presumed to have taken full advantage of the great technological advances made in this industry between the date on which protection was first given to the industry and the dates on which the more recent units came into existence. In regard to the point made about the possible adverse effect of removal of protection on the future expansion of the industry, we must confess that these fears appear to us to be without much foundation. The Government of India are now definitely wedded to a policy of protecting Indian industries. A very large number of smaller industries have come into existence during the last few years. Many of these industries have already applied for and received protection from Government as a result of the tariff inquiries conducted by the Board. It appears inconceivable to us that Government would not be willing and ready, should the need arise, to give a vital industry, like the iron and steel industry, which has been nursed and fostered under a policy of protection, the same measure of protection which it has already given to the smaller industries. Besides satisfying the civilian needs, the iron and steel industry is of paramount importance in meeting military requirements, upon which the defence of the country depends, and it is, therefore, certain that if this industry, which is one of the key industries, is ever threatened with competition from abroad, which might force it to curtail production or sell its products at uneconomic prices, Government would not show any hesitation in coming forward to help it in time. However, since such fears were expressed at the conference and since in our opinion it is essential that

the industry must be assured of protection should the need arise, we have in a later part of the report recommended that Government should give a categorical assurance of protection to the industry. Taking the changed political conditions of today into consideration, we do not think that the industry should be apprehensive of any tardiness on the part of Government in protecting its interests in case of need or emergency. We feel that the industry's plea for continuation of protection, which could not be substantiated on the ground of competition from abroad, was largely due to its desire to take the line of least resistance, whereby it could demand the imposition of protective duties at any later stage without having to prove the case for protection. We feel that a well-established industry like the iron and steel industry, which has already enjoyed the benefit of protection for so many years, is not justified in adopting this attitude, but that the industry has now sufficient strength to meet the impact of any competition from abroad during such time as may be required for consideration of the case and the reimposition of such duties as might be deemed necessary under the conditions prevailing at that time. We also feel that if the removal of protection does help in however small a way in increasing the volume of such imports as are badly required by the general public and for the rehabilitation and expansion of Indian industries, it should be welcomed for the good of the general consumer whose interests have to be safeguarded in considering the maintenance or removal of protection of any industry.

Demand for protection not substantiated.

14. We have seen that the overall world position of iron and steel is very tight, that although the important steel producing countries are planning to expand their production of steel, yet the results of this expansion, even if carried out, will be absorbed largely to meet their own requirements, that such imports as have found their way into India in recent years have been a mere fraction of what is required to bridge the gap between home production and demand, that the domestic prices of most of the iron and steel products in the foreign countries are nearly equal to the controlled prices of similar products in India and that the export prices in many places are even higher and that the c.i.f. prices at which many of these products can be landed in India without paying any duty are higher than the retention prices payable to the Indian manufacturers. We must now examine the full implications of these findings *vis-a-vis* the demand made by the industry for continuation of the present scheme of protection. It will be recalled that the industry was asked to consider three alternatives, viz.,

(a) continuation of the present scheme of protection;

(b) keeping the industry protected, but holding the protective duties in abeyance, and

(c) removal of protection to the industry but levying of such revenue duties as may be imposed by Government upon budgetary considerations.

The industry was further informed that if it asked for the continuance of protection in any form whatsoever in the light of the circumstances prevailing today, the burden of proof rested heavily on it. The

industry has not been able to advance any definite proof substantiated by figures and facts that it is threatened by imports coming from abroad in any appreciable quantities at prices which are lower than those charged by it in the domestic market. On the contrary, sufficient evidence has been placed before us to prove that, in the first place, the volume of such imports as are coming at present, or are likely to come in the near future, is extremely small and, in many cases, is represented either by those articles which the industry is not able to manufacture up to India's full requirement or certain semi-finished materials for which there is great demand from the secondary producers. Further, in those cases where the imports of these articles in limited quantities are being received from abroad, the prices at which they are being landed in India, even without paying any duty, are higher than the retention prices paid to the Indian manufacturers. Besides, Sir Ardeshir Dalal, representing the Tata Iron and Steel Company, made it clear at a later stage in the discussion that the industry did not require any protection as things stood at present and that if necessity arose later on, the industry would come up for revival of protection. Tatas are the largest producers of steel and therefore their view on the question of continuance of protection has a special value and significance. In view of these reasons we have come to the conclusion that the industry has not been able to substantiate its demand for the continuance of protection, and we therefore recommend that with the exception of certain special items which we shall indicate presently, the protection enjoyed by the iron and steel industry comprising the following general items should now be terminated. The items to which the existing scheme of protection applies and for which we have recommended the termination of protection comprise the products grouped under the following heads: Rolled steel, fabricated steel tin plate, wire and wire nails and iron and iron products. These products are classified in the existing Tariff Schedule under items 63(2), 63(3), 63(6), 63(9), 63(10), 63(12), 63(15), 63(17), 63(19), 63(20), 63(21), 63(25), and 63(27). These items should now become subject to revenue duties. When any items are removed from the protective list they will naturally become subject to such revenue duties as the Government may decide. It is not really within our province to suggest what rates of revenue duties should apply to such de-protected items. The scales of revenue duties must be decided by Government in the light of budgetary requirements. In view of certain anomalies that now exist in the Tariff Schedule, we are bound to draw the attention of the Government to these anomalies. At present where the protective duties are *ad valorem*, the duty on British materials is 12 per cent. and is lower than the rate of revenue duties which is generally 18¾ per cent. But in the case of Continental materials, the rate of protective duties, which is 24 per cent., is higher than the rate of revenue duties indicated above. When the protective duties are specific, their incidence is lower than that of revenue duties, both in the case of British and Continental steel products. When the original revenue and protective duties were fixed, the Government could not have intended to levy revenue duties at higher rates than protective duties. The anomaly has crept in partly because of the increase in the rates of revenue duties necessitated by the budgetary requirements of the war period and partly because of the unsetting of the relation between the specific and *ad valorem* rates due to the great

increase in the prices of the articles. If, as a result of our recommendation for the de-protection of these items, they are subjected to rates of revenue duties in excess of the prevailing rates of protective duties, it would be a consequence which we do not contemplate and which the Government itself would not wish. We, therefore, further recommend that whatever scales of revenue duties are adopted for these de-protected items, they should not be higher than the existing levels of protective duties applicable to these items. The problem becomes further complicated by the fact that in the present Tariff Schedule there are differential scales of duties applicable to most of these items—a lower scale for goods of British manufacture and a higher scale for the rest. It is not within our purview to express any opinion as to whether these differential rates should still be maintained when these items are transferred to the revenue list. There is one further point to which we should draw the attention of the Government. The scales of revenue duties as we have shown above are in many cases higher than the scales of protective duties. If our recommendation that the revenue duties on de-protected items should not be in excess of the existing protective duties thereon is accepted, then the present unprotected items would in most cases bear a higher scale of revenue duties. In other words, there would be different scales of revenue duties applicable to similar or allied groups of iron and steel products. It would be desirable to have as far as possible a uniform scale of revenue duties applicable to all similar categories of iron and steel products. It is therefore a matter for the consideration of Government whether they should not take advantage of the present opportunity to bring about the above result.

Special products on which protection should be continued.

15. (1) During the discussion in the conference it was pointed out to us that even if it was decided to remove protection from the iron and steel industry in general, there were certain items which needed special consideration. Tatas in their written memorandum had made a special plea for the continuation of protection in regard to alloy, tool and special steels, and high silicon electrical steel sheets which had been developed mainly during war time to help the war effort. They made this plea partly on the ground of tariff inequality in regard to the import duty on ferro-alloys and on non-ferrous metals and partly on the ground of wide disparity between the U.K. control prices of ferro alloys and non-ferrous metals and the Indian Government bond issue rates, which are said to be much higher. The question of alloy, tool and special steels is already before the Board for examination and we recommend that, pending the report of the Board, the prevailing protective duties on these articles as well as high silicon electrical steel sheets should be allowed to continue till 31st March, 1948. In the meantime Tatas may submit an application for continuance of protection to high silicon electrical steel sheets, which would also be considered along with the claim for protection required by the ferro-silicon industry which is being investigated by the Tariff Board.

(2) Indian Steel and Wire Products made a special plea in respect of high carbon wire and spring steel wire which have been developed by them during war time and in regard to which they said they were

unable to meet foreign competition at the prevailing prices. Since this question was raised for the first time at the conference we did not have sufficient time to go into it and compare the costs of manufacture with the landed costs. We, however, propose to make this inquiry in a detailed manner as early as possible, and we recomend that, pending the result of this inquiry, the present protective duties on carbon wire and spring steel wire should remain in force.

(3) The Tinplate Company of India also put in a plea for continuation of protection to the tinplate industry on the ground of increases in the prime costs, namely those of tin-bars and tin, which according to them have fallen more heavily on the Indian industry than the British industry. They produced statistics to show the increase in the price of tin bar and tin in India and England between 1934 and 1946, which according to them imposed a certain amount of handicap on them as compared with the British manufacture. They, however, admitted that at present there was no competition from England in respect of tinplate, and the Iron and Steel Controller informed us that he was having very great difficulties in importing even small quantities of tinplate into India at reasonable prices. In view of the lack of competition, we are unable to accept the plea put forward by the Tinplate Company of India for continuation of protection to this industry. But, if such a competition ever arises in the future, and the Tinplate Co. of India finds itself unable to face competition from the U.K. or other foreign countries, it is open to it to come forward with a fresh application for investigation of the case, which we have every reason to believe will be speedily disposed of by government.

(4) Manufacturers of fabricated steel also pleaded for continuation of protection on the ground that the integrated units in the U.K., might be in a position to export these materials at competitive prices to the Indian market. Upon further examination, however, they admitted that at present their capacity was much below the total Indian requirements and that, further, they were finding it difficult to run their factories up to their full capacities for want of sufficient raw materials. They also admitted that at present the imports of fabricated steel were negligible and they were unable to predict when such imports might come in large quantities and at competitive prices so as to offer severe competition to them. In view of these reasons, we are unable to accept their plea for continuation of protection to this industry. There is, however, one point arising out of this discussion to which we would like to draw government's attention. They pointed out the existence of a tariff inequality in respect of ceraitn articles such as sluice gates, upon which a lower duty was charged as these articles were regarded as machinery parts rather than as fabricated steel. They were unable to give full details in regard to such articles for which this tariff inequality exists. We suggest that, if they make a proper representation supported by facts and figures in support of their complaint regarding the existence of a tariff inequality, the application should be sympathetically considered by the Central Board of Revenue.

(5) We have recommended the continuance of protection in the case of certain products included in items 63(2), 63(3), 63(20) and

63(25) which come under she category of alloy, tool and special steels, high silicon electrical steel sheets, and high carbon and spring steel wires for which the continuance of protection is necessary. As these items are not shown separately in the existing schedule, we have suggested certain amendments to the present schedule. In Appendix IX we have indicated in detail the amendments suggested for products covered by these items which should continue to enjoy the existing protection till 31st March, 1948. Part A of the appendix contains an enumeration of these items and the nature and rate of duties applicable to them at present. Part B of the appendix indicates how these items have to be split up and reclassified and what is the nature and rate of duty proposed.

Assurance of future protection to the industry.

16. It must have been observed from the preceding paragraphs that the industry's demand for continuation of protection, even in a nominal form, with the protective duties held in abeyance, was not based on the existence of any competition at the present moment, but it was rather actuated by the fear that dumping might be resorted to by foreign countries in future, and that if such dumping took place, the government machinery might move so slowly that considerable harm might ensue to the industry before the matter could be put right. Another ground urged by the industry for the maintenance of *status quo* was that de-protection at this stage when the industry was formulating ambitious plans for expansion in order to make the country self-sufficient in this vital product, might have the effect of discouraging the investment of the necessary capital in new iron and steel projects. The iron and Steel (Major) Panel has estimated that the amount of capital required for a unit capable of producing initially about half a million tons of finished steel so laid out and designed as to permit its further expansion to double this capacity would cost at present about 25 crores of rupees. Both these grounds, though not justifying, in the opinion of the Board, for the continuance of protection, merit serious consideration and call for some action on the part of Government. With a view to allaying the fears of the industry and encouraging fresh invvestment for expansion, we recommend that Government should, simultaneously with the termination of protection to the iron and steel industry, make a declaration that this industry would be free at any time to approach them with a request for protection, and that, in the event of such a request being made, government shall forthwith institute a tariff inquiry. If, as a result of such a tariff inquiry, the industry is able to prove that it is managed on sound business lines and that it is unable to compete with imports by reason of the landed costs being below the fair selling prices of comparable products, government would give the necessary protection. With such an assurance, we do not see any reason why the industry should feel doubtful that the required protection or assistance would be forthcoming. Although it is the declared policy of Government to foster and develop industries by protecting them wherever it is necessary, the assurance that we recommend carries an obligation on the part of the government to guarantee a prompt tariff inquiry when the industry asks for it. In our opinion, such an assurance should be more valuable from the

point of view of both the industry as it exists today and its future expansion than piecemeal extension of the existing protection from year to year. We attach great importance to this assurance by Government, which we consider to be an integral part of our recommendation. Any decision by Government to terminate the existing protective duties, must, therefore, be accompanied by the declaration as set forth above. We need hardly add that one implication of the proposed assurance is that any request from the industry for protection must be immediately referred to the Tariff Board and that every endeavour should be made to make a decision within six months of the date of receipt of application for protection.

Effect of control.

17. The question of continuation of control in its present or modified form was also raised at the conference. It was suggested that the whole question of control should be re-examined with a view to making iron and steel products available to the public at cheaper rates than at present, assuring at the same time a reasonable margin of profit to the producers. The question of control has been thoroughly dealt with by the Iron and Steel (Major) Panel in chapter VII of their first report and many of the issues mentioned either in the report or raised at the conference are really outside the purview of a tariff enquiry. We should, however, like to point out that so long as control continues, it affords an indirect protection to the indigenous industry. The prices of all varieties of iron and steel products are at present fixed by the Iron and Steel Controller on the basis of pre-war prices plus audited increases in costs owing to the rise in costs of materials, wages, etc. The prices of the imported articles are also informally fixed by the Iron and Steel Controller after paying due regard to the corresponding qualities manufactured in India. It is presumed that so long as the steel position remains tight and there is an apprehension of some of these supplies finding their way into the black-market and being offered to the general consumer at exorbitant prices, the present control, in some form or other, will be considered necessary. If our presumption is correct and if the control is retained during the next two years or so, then the mere existence of this control will afford an indirect protection to the industry in two ways. It will, on the one hand, guarantee it a reasonable margin of profit calculated on the basis of costs of manufacture and, on the other, it will prevent any unfair competition from imported products, of which the prices will also be fixed by the Controller with due regard to the prices of the indigenous products. We, therefore, feel that even if the present protection is terminated on 31st March 1947 as a result of our findings, the industry will enjoy an indirect protection by virtue of the control which is likely to continue for some time to come. This, together with the imposition of such revenue duties as may be found necessary upon budgetary considerations, will, in our opinion, afford indirect protection to the industry for the next two or three years and will certainly give them adequate safeguards against dumping for which some fears were expressed by the representatives of the industry at the conference.

18. We have dealt with the main issues relating to this inquiry. At the conference, however, certain other points were raised by the primary and secondary producers with which we shall now deal briefly.

Special points raised at the conference.

(1) *Demand for a full-fledged inquiry.*—The view that the Tariff Board should hold a full-fledged inquiry not only for the purpose of fixation of prices but also to go into the organization, efficiency and equipment of the steel industry was expressed by several speakers at the conference. In their opinion, such an inquiry is necessary to safeguard the consumers' interests. It was pointed out by them that, although steel is produced more cheaply in India than in many other countries, still the full benefit of cheap production is not passed on to the consumer. It was urged that the Tariff Board should, therefore, go into the matter and look into the question of internal costs and the organization of the industry in the course of this year, and that the existence of abnormal conditions prevailing to-day should not stand in the way of such inquiry. We are of the opinion that such an inquiry, raising many fundamental and complex issues, is out-side the scope of this reference, but we are drawing Government's attention to the views expressed at the conference regarding the need for such an inquiry for such action as Government may deem fit to take in the matter

(2) *Re-rolling industry's handicaps.*—The representatives of the Re-rollers stated that they require 350,000 tons of steel billets for which they have the capacity to roll merchants bars, but they are not provided with the requisite quantity of billets. Their industry is, therefore, starved for want of sufficient raw material. They also pointed out that, as the primary industry was not in a position to supply the requisite quantity of billets to them, they wanted pig iron so that they could make their own billets. They stated that they have got the capacity to manufacture steel from pig iron to the extent of 100,000 tons and wanted an inquiry as to why the primary producers did not supply pig iron to them even when they could spare it. They further stated that, as the secondary industry was not able to utilize its full capacity, they were losing money, and that, therefore, Government should help them by refunding to them the excise duty on steel realised from the main producers. They wanted the Tariff Board to enquire into all these matters. Some of these points have been dealt with in the second report of the Iron and Steel (Major) Panel, and in any case, they are outside the scope of the present inquiry. Since they were raised at the conference, we are drawing Government's attention to them for such action as may be regarded necessary in the matter.

(3) *Heavy incidence of freight*:—The representatives of the Mysore Iron & Steel Works stated that for some time past the increase in freight had imposed a heavy burden on them. The freight on coal had increased from about Rs. 28 per ton in 1942-43 to Rs. 61 per ton at the present time. Apart from this increase in freight, they also stated that they were severely handicapped by increase in prices of scrap iron which had risen from Rs. 46 per ton in 1942-43 to Rs. 67 per ton in 1946 and increase in the cost of charcoal which had risen by about Rs. 20 per ton. As a result of these various increases they stated that their cost of manufacture had gone up by about Rs. 74 per ton. They urged that immediate investigation should be held to inquire into these matters. These points are also outside the purview of the present inquiry, but since they were raised at the Conference, they are brought to the notice of Government.

19. Our conclusions and recommendations may be summarised as under :—

Summary of conclusions and recommendations.

(1) The Indian demand for steel in the next two or three years is estimated at over two million tons per annum. (Paragraph 7).

(2) The present production of finished steel of all categories including those produced in Ordnance Factories and in electric and other small furnaces and steel rolled from scrap would not exceed 1.2 million tons per annum. (Paragraph 8).

(3) The present world output of steel is by no means sufficient to meet the world demand, and it is, therefore, extremely doubtful if the foreign countries will be able to offer any competition to the Indian iron and steel industry in the next few years. (Paragraphs 10, 10-A).

(4) In spite of the relaxation of controls the import of iron and steel products, especially of the protected varieties, has not shown any appreciable increase since the termination of war. (Paragraph 11).

(5) The retention prices of iron and steel products manufactured in India are lower than the c.i.f. prices of similar products from other countries, and unless foreign countries are in a position to reduce considerably their export prices, foreign competition will not assume threatening proportions in the next few years. (Paragraph 12.)

(6) The industry has not been able to substantiate its demand for the continuance of protection. The scheme of protection to the industry should therefore be terminated with effect from end of March 1947, except in respect of certain special items such as alloy, tool and special steels, high silicon electrical steel sheets and high carbon and spring steel wires. (Paragraph 14.)

(7) Unless budgetary considerations dictate otherwise, the revenue duty to be imposed on the de-protected items should not be higher than the existing level of protective duties applicable to these items. (Paragraph 14.)

(8) It is a matter for consideration of Government whether they should not take advantage of the present opportunity to bring about as far as possible a uniform scale of revenue duties applicable to all similar categories of steel and iron products. (Paragraph 14.)

(9) Pending the results of a detailed inquiry into (a) alloy, tool and special steels item 63(2) and 63(3), (b) high silicon electrical steel sheets (63|20), (c) high carbon and spring steel wires (63|25), the prevailing protective duties on these articles should be continued. (Paragraph 15.)

(10) With a view to allaying the fears of the industry and encouraging investment of capital for expansion, Government should, simultaneously with the termination of protection to the iron and steel industry, make a declaration that this industry would be free at any time to approach them with a request for protection from competition from abroad, and that, in the event of such a request being made, Government shall forthwith institute a tariff inquiry, and on the results of the tariff inquiry Government would give the industry the necessary protection. (Paragraph 16.)

Acknowledgments.

20. We have great pleasure in expressing our thanks to all those representatives of the producers, associations, importers, consumers and other interests who at very short notice accepted our invitation to attend the inquiry and helped us in our deliberations. We are grateful to Mr. E. G. Spooner, Iron and Steel Controller and Mr. G. W. M. Whittle of the Department of Industries and Supplies for the valuable help rendered by them in this inquiry. We would also like to express our keen appreciation of the valuable services rendered by our Technical Adviser, Mr. R. N. Kapur, who put in a great deal of hard work in collecting statistical data. We would also like to thank the Deputy and Assistant Secretaries, Rai Sahib Aggarwal and Dr. Rama Varma, and our Official Reporters and Clerical Staff for the help given by them at all stages of the inquiry which enabled us to complete this inquiry in record time.

SHANMUKHAM CHETTY,
President.

C. C. DESAI,
Member-Secretary.

NAZIR AHMAD,
Member.

H. L. DEY,
Member.

S. C. AGGARWAL
Deputy-Secretary

BOMBAY,
12th February 1947.

APPENDIX I.

(*Vide paragraph* 1).

No. 134-T(36)|46.

GOVERNMENT OF INDIA.

DEPARTMENT OF COMMERCE.

New Delhi, the 19th December 1946.

FROM

B. N. BANERJI, ESQ., M.B.E.,

Deputy Secretary to the Govt. of India.

To

THE MEMBER-SECRETARY,

Indian Tariff Board,

Caltex House, Ballard Estate,

BOMBAY.

SIR,

I am directed to address you on the question of continuance of protection to certain old established industries and particularly the sugar, paper and wood pulp, cotton textile manufacturing, and iron and steel manufacturing industries which had been granted tariff protection on the basis of recommendations made by previous Tariff Boards. As you are no doubt aware, the period for which protections had been granted to these industries was due to expire during the early years of the war, but had to be extended from time to time, and the last extension agreed to by the Legislature is due to expire on the 31st March 1947. Government have therefore, to decide urgently as to their future course of action in respect of continuation of protection to these industries beyond the 31st March 1947, so that the necessary legislation could be undertaken during the forthcoming Budget Session of the Indian Legislature.

2. The most suitable method of coming to a decision on this question would undoubtedly be to request the Tariff Board to investigate the claims of these industries to continued enjoyment of protection at the existing, or at a reduced or enhanced scale. The Government of India are advised, however, that many of the economic uncertainties which made it impossible to conduct such an enquiry during the war are still continuing, and they are therefore considering whether any alternative method could be found for evaluating in a summary manner, and pending a full-dress tariff investigation which has to be postponed to a later date, the necessity or otherwise of continuing the existing measures of protection afforded to these industries beyond the 31st March 1947. While the Government of India consider that there is a good deal of force in the argument that conditions have not yet sufficiently returned to normal for a reasonably ac-

correct appraisement of domestic cost and foreign prices, they feel at the same time that many of the already protected industries have reached a stage where the continuance of protection at the existing level merely results in the grant of an excessive margin of profit to the manufacturing interests at the direct expense of the consumer.

3. I am therefore to request you to be so good as to place this matter before the Tariff Board and let Government have their advice as to what would be the best method of proceeding further in this matter In making their recommendations, the Board will no doubt bear in mind the interests both of the manufacturers and the consumers and will therefore consider the advisability of having a summary discussion with the representatives of the industries mentioned earlier in the letter and other interested parties. As a decision has to be taken well before the commencement of the Budget Session in order to enable Government to introduce the necessary legislative measures in time, it will be greatly appreciated if the Board could forward their considered opinion as regards the degree of protection to be continued to these four industries, by the end of January, although this may involve some delay in completing the Board's programme relative to the wartime industries.

I have the honour to be,

Sir,

Your most obedient servant,

B. N. BANERJI,

Deputy Secretary to the Govt. of India.

APPENDIX II

(*Vide paragraph* 1).

GOVERNMENT OF INDIA.

DEPARTMENT OF COMMERCE.

New Delhi, the 20th January 1947.

RESOLUTION.

Tariffs.

No. 28-T(6)|46.—In their Resolution in the Department of Commerce No. 218-T(55)|45, dated the 3rd November 1945, the Government of India announced the setting up of a Tariff Board to investigate claims for assistance or protection received from industries which have been started or developed in war time.

2. Government have also under consideration the question of continuance of protection to certain industries which were established before the war and were granted tariff protection on the basis of recommendations made by previous Tariff Boards. They have decided to request the Tariff Board, set up under the Resolution referred to in the preceding paragraph, to investigate and advise them with regard to the claims of such industries.

3. Government recognise that, in the present abnormal conditions, it would not be possible to formulate a long term tariff policy in respect of the well established industries. The Tariff Board is accordingly requested to hold summary inquiries and advise Government whether, in present circumstances, protection at the existing or at a different scale should be granted for a further year after the 31st March 1947 to the following industries:—

(1) Sugar;

(2) Paper and wood pulp;

(3) Cotton Textiles;

(4) Iron and Steel.

N. R. PILLAI.

Secretary to the Government of India.

APPENDIX III.

(*Vide paragraph* 3).

List of firms, bodies and individuals to whom the invitations to attend the conference were issued.

PRODUCERS :

1. The Tata Iron & Steel Co. Ltd., Bombay.
2. The Indian Iron & Steel Co. Ltd., Calcutta.
3. The Steel Corporation of Bengal Ltd., Calcutta.
4. The Mysore Iron & Steel Works, Bhadravati.
5. The Tinplate Co. of India Ltd., Calcutta.
6. The Indian Steel & Wire Products Ltd., Calcutta.
7. The Braithwaite Burn & Jessop Construction Co. Ltd., Calcutta.
8. Hindustan Construction Co. Ltd., Bombay.

ASSOCIATIONS:

1. The Federation of Baroda State Mills & Industries, Baroda.
2. The Bombay Iron Merchants' Association, Bombay.
3. The Steel Re-rolling Mills' Association of India, Calcutta.
4. The Bombay Steel Traders' Association, Bombay.

IMPORTERS:

1. Adamji Lookmanji & Co., Bombay.
2. Devidayal & Sons, Bombay.
3. Damodar Khetsey, Bombay.
4. Anandji Haridas & Co., Ltd., Bombay.
5. The Bombay Co. Ltd., Bombay.
6. Grahams Trading Co. (India) Ltd., Bombay.
7. Guest, Keen, Williams Ltd., Calcutta.
8. Heatly & Gresham Ltd., Bombay.

CONSUMERS:

1. The Mukund Iron & Steel Co. Ltd., Bombay.
2. The Indian Hume Pipe Co. Ltd., Bombay.
3. Richardson & Cruddas Iron Works, Bombay.
4. Bhagat & Sons, Ltd., Bombay.
5. Metal Box Co. of India Ltd., Bombay.
6. Alcock Ashdown & Co. Ltd., Bombay.
7. The United Steel Co. (India) Ltd., Bombay.

INDIVIDUALS:

1. J. C. Mahindra Esq., Mahindra & Mohammed Ltd., Bombay.
2. S. M. Bashir, Esq., J. K. Iron & Steel Works, Cawnpore.

OFFICIALS:

1. E. G. Spooner, Esq., Iron & Steel Controller, Calcutta.
2. G. W. M. Whittle, Esq., I.C.S., Department of Industries & Supplies, New Delhi.

APPENDIX IV.

(Vide paragraph 3).

List of the persons who attended the Iron and Steel Conference held on the 27th January 1947.

PRODUCERS.

Sir Ardeshir Dalal and Mr. A. Rajagopalan	..	.. Representing	The Tata Iron & Steel Co. Ltd., Bombay.
Sir Padamji Ginwala	..	.. ,,	The Indian Iron and Steel Co. Ltd. and The Steel Corporation of Bengal, Calcutta.
Mr. Balkrishna, Mr. D. C. Krishna Rao and Mr Dattatreyan	..	.. ,,	The Mysore Iron & Steel Works, Bhadravati.
Mr J. P. Ainscough	..	.. ,,	The Tin Plate Co. of India Ltd., Calcutta.
Mr V. P. Dube, Mr. I. M. Pai, and Mr. Jayantilal Devidayal	..	.. ,,	The Indian Steel & Wire Products, Ltd., Calcutta.
Mr. H. W. T. Hain	..	.. ,,	Braithwaite & Co., Calcutta.
Mr. S. S. H. Sitwell	..	.. ,,	The Braithwaite Burn & Jessop Construction Co. Ltd., Calcutta.

ASSOCIATIONS.

Seth Ramanlal Chimanlal	..	.. Representing	The Federation of Baroda State Mills and Industries, Baroda.
Mr. A. A. Jasdenvala	..	.. ,,	The Bombay Iron Merchants' Association, Bombay.
Mr. N. N. Rakshit, Mr. R. P. Nevatia and Mr. S. K. Nag	..	.. ,,	Steel Re-rolling Mills' Association' Calcutta.
Mr. Anandji Haridas and Mr. Babubhai Odhavji	..	.. ,,	The Bombay Steel Traders' Association, Bombay.

IMPORTERS.

Mr. A. A. Jasdenvala	..	.. Representing	Adamji Lookmanji & Co., Bombay.
Mr. Anandji Haridas	..	.. ,,	Anandji Haridas & Co., Bombay.
Mr. Forbes Leith	..	.. ,,	Guest Keen, Williams Ltd., Calcutta.
Mr. B. G. P. Spinks	..	.. ,,	Heatly & Gresham Ltd., Bombay.

CONSUMERS.

Mr. S. M. Lal and Mr. J. P. Varma	..	.. Representing	The Mukund Iron & Steel Co., Ltd., Bombay.
Mr. C. Etherington	..	.. ,,	Richardson & Cruddas Iron Works, Bombay.
Mr. Parkinson	..	.. ,,	Metal Box Co. of India Ltd., Calcutta.
Mr. Miller	..	.. ,,	Alcock Ashdown & Co., Bombay.
Mr. J. Mackenzie Mair	..	.. ,,	The United Steel Co. (India), Ltd., Bombay.

INDIVIDUALS.

Mr. J. C. Mahindra	..	.. Representing	Mahindra & Mohammed Ltd., Bombay.
Mr. S. M. Bashir	..	.. ,,	J. K. Iron & Steel Works, Cawnpore.

OFFICIALS.

E. G. Spooner, Esq.	..	.. Representing	Iron & Steel Controller, Calcutta.
G. W. M. Whittle, Esq., I.C.S.	..	.. ,,	Department of Industries and Supplies, New Delhi.

APPENDIX V.

[*Vide paragraph* 6(*b*).]

Output of principal products of the Tata Iron and Steel Co., from 1934-35 *to* 1945-46.

Statement (1).

Output of principal products.

[Figures in tons]

	Coke	Pig iron	Steel ingots	Saleable Steel
1945-46	901,000	1,006,000	1,014,000	746,000
1944-45	793,000	860,000	954,000	747,000
1943-44	964,000	1,148,000	1,092,000	831,000
1942-43	1,058,000	1,106,000	1,001,000	728,000
1941-42	1,136,000	1,237,000	1,082,000	839,000
1940-41	1,135,000	1,180,000	1,084,000	834,000
1939-40	972,000	1,140,000	1,018,000	777,000
1938-39	865,000	1,020,000	947,000	715,000
1937-38	896,000	921,000	899,000	674,000
1936-37	778,000	827,000	850,000	680,000
1935-36	730,000	900,000	880,000	661,000
1934-35	726,000	892,000	834,000	611,000

APPENDIX V—*concld.*

Statement (2).

——	1934-35	35-36	36-37	37-38	38-39	39-40	40-41	41-42	42-43	43-44	44-45	45-46
Rails and fishplates ..	76,000	82,000	88,000	88,000	99,000	119,000	119,000	92,000	85,000	107,000	90,000	90,000
Bars and light Structurals	181,000	188,000	188,000	190,000	197,000	223,000	273,000	268,000	234,000	250,000	202,000	19,000
Heavy Structurals ..	88,000	97,000	83,000	79,000	88,000	71,000	72,000	65,000	49,000	49,000	65,000	59,000
Plates	39,000	46,000	49,000	66,000	66,000	76,000	75,000	84,000	83,000	84,000	71,000	57,000
Black Sheets	21,000	29,000	28,000	31,000	30,000	35,000	50,000	105,000	110,000	135,000	106,000	86,000
Galvanised Sheets ..	73,000	77,000	90,000	69,000	108,000	101,000	115,000	50,000	13,000	16,000	17,000	49,000
Tin Bars	75,000	71,000	70,000	82,000	60,000	84,000	82,000	85,000	74,000	83,000	79,000	70,000
Sleeper bars & sleepers ..	22,000	19,000	23,000	12,000	18,000	17,000	11,000	2,000	..	1,000	39,000	48,000
Blooms, billets and Sheet bars.	44,000	45,000	60,000	54,000	60,000	52,000	72,000	80,000	65,000	82,000	85,000	57,000
Wheels, tyres & axles ..	..	..	..	..	..	..	..	..	4,000	10,000	15,000	19,000
Total ..	619,000	654,000	678,000	671,000	726,000	778,000	869,000	831,000	717,000	817,000	769,000	726,000

APPENDIX VI.

Statement 1.

(Vide paragraph 8).

Statement of the quantity of Iron and Steel Manufactures (Protected variety only)† produced in India since 1935-36—*Year (April to March).*

——	35-36	36-37	37-38	38-39	39-40	40 to 43	43-44	44-45	45-46	1946 (April to August)			
										April	May	June	July
								Tons (000)					
1. Rolled Products :													
Finished Steel–													
1. Rails heavy 50 lbs. and above	64	84	75	91	101	Information not available.	121	80	92	10,400	7,456	11,379	4,87)
2. Rails light below 50 lbs.	0·76	2	3	3	3	,,	6	16	10	464	769	522	442
3. Beams ..	89	72	59	76	59	,,	28	38	28	3,431	4,809	3,418	6,290
4. Bars ..	131	132	195	197	235	,,	249	236	245	21,739	17,586	19,899	20,268
5. Channels	13	7	12	14	11	,,	27	27	28	1,174	636	449	1,267
6. Angles ..	40	48	50	51	57	,,	91	78	68	4,756	6,356	4,034	4,085

7. Tee ..	13	7	6	5	8	,,	8	9	9	221	825	621	318
8. Fish Plates ..	3	3	4	4	4	,,	5	5	4	523	335	196	429
9. Plates ..	46	51	65	65	76	,,	79	67	56	4,694	5,501	4,801	5,659
10. Galvanized sheets:													
Plain ..	20	22	11	24	29	,,	15	24	52	4,188	4,768	4,061	4,785
Corrugated	55	70	70	71	74	,,	12	11	42	4,539	5,243	3,797	5,544
11. Black Sheets ..	40	29	27	26	37	,,	264	214	177	9,069	10,947	7,985	2,663
II. Iron & Steel Castings and Manufactures.													
1. Steel sleepers	16	15	9	16	19	,,	0·02	36	56	3,360	5,464	2,753	2,863
2. Iron Castings ..	74	96	112	84	125	,,	119	106	109	10,363	10,042	8,565	10,456
3. †Steel Castings. ..	2	3	3	4	4	,,	3	4	4	317	223	390	342
4. Miscellaneous Castings	0·29	0·28	0·58	0·32	0·31	,,	0·51	2	9	851	203	891	231
III. Wire & Wire Products:													
1. Wires (including Hard, Bright annealed and galvanized & galvanized barbed) ..	..	..	17	23	17	..	29	23	22	1,802	..	1,523	2,662

APPENDIX VI—*contd.*

Statement (1)—*concld.*

Statement of the quantity of Iron and Steel Manufactures (Protected variety only)† produced in India since 1935-36—*Year (April to March)*—concld.

——	35-36	36-37	37-38	38-39	39-40	40 to 43	43-44	44-45	45-46	1946 (April to August)@			
										April	May	June	July
WIRE & WIRE PRODUCTS—*contd.*						Tons (000)					Tons		
2. Wire Nails	..	..	..	11	10	Information not available.	11	8	10	817	..	727	781
V. TIN PLATES :	..	..	56	46	61	„	18	30	20	1,124	3,261	3,165	2,709
Total ..	607	641	783	811	930	„	1,086	1,014	1,041	83,751	85,025	79,186	76,964

Source :— (1) Monthly statistics of production of certain selected commodities (D.G.I. & S.) upto 1945-46.
(2) Enclosure to D.O. No. 732 P dated 16-1-47 from Director of Statistics D.G. I. & S.
@Provisional.
* Information is given in the accompanying statement 2. (Source Iron & Steel Control).
† Unprotected varieties are shown in statement No. 2.

APPENDIX VI—*contd.*

Statement (1A).

Production of Finished Steel (Protected Variety only) 1939-44.

Description	1939	1940	1941	1942	1943	1944
	Tons (000)					
1. *Rolled Products:*						
Heavy Rails & Fish Plates ..	99	102	84	75	118	97
Sheets G-10 and Tinner ..	137	177	234	218	233	218
Plates 2" and up	74	76	73	77	68	69
Plates B.P.	..	0·3	5	7	7	0·6
Bars ½" and up	253	299	278	280	310	197
Rods under ½"	46	75	76	59	51	30
2. *Iron and Steel Castings and Manufactures:*						
Heavy structurals	77	78	80	72	51	76
Light structurals	58	97	131	102	121	118
Bolts, Nuts, Rivets and Spikes	8	12	15	16	18	21
Steel Castings	10	10	10	10	9	10
Shell Steel	..	6	51	31	34	26
Spring Steel	5	10	5	8	13	17
Tool Steel	0·3	0·7	0·8	0·7	1	4
3. *Wires & Wire Products* ..	16	21	28	31	27	22
4. *Tin Plates and Substitutes* ..	59	62	57	58	68	73
Total ..	842	1 026	1,128	1,045	1,129	979

APPENDIX VI—*concld.*

Statement (2).

Statement of the quantity of Iron and Steel manufactures produced in India since 1935-36, *Unprotected variety only.*

	35-36	36-37	37-38	38-39	39-40	40-43	43-44	44-45	45-46*	1946 (April to August)*			
										April	May	June	July
				Tons (000)						Tons			
Pig Iron—													
Basic ..	1,147	1,100	1,084	994	1,155		1,318	1,042	1,136	104,538	86,747	95,548	90,252
Foundry ..	393	452	560	582	683		368	260	353	31,628	42,506	26,598	33,746
Steel Ingots ..	880	861	922	977	1,070		1,366	1,266	1,313	116,324	110,820	109,483	102,789
Semis—													
Blooms, billets & slabs ..	..	..	554	581	611		668	580	611	51,128	50,364	47,455	48,455
Tin Bars ..	69	72	80	57	83		82	77	80	1,698	5,495	5,699	6,379
Sheet Bar ..	..	..	117	140	166		292	252	268	24,777	22,111	20,766	19,651
Sleeper Bars	2	7	8	12	12		1	41	62	3,898	3,236	3,434	4,092
Finished Steel—													
Hoops ..	..	..	..	0·06	0·18		4	6	7	790	522	2	600

—Information not available.

* Provisional.

APPENDIX VII.

(*Vide paragraph* 12).

Comparative Study of South African, U.K. and Indian Prices for certain Finished Steel Products.

Products	*South Africa (d/d., Wit-Waterstand)	* United Kingdom (d/d., net)		Conversion in Rs. for columns (1, 2 & 3)			Indian controlled (Base) Prices 1-4-46 to date.	
	1	2	3	1	2	3	Tested	Untested
	1946	1945	1946					
	£ s. d.	£ s. d.	£ s. d.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.
Heavy Plates ..	19 9 0	15 8 0	16 9 0	259 5 4	205 5 4	219 10 4	225 0 0	212 0 0
Heavy Sections ..	19 3 8	14 13 0	15 4 6	255 12 6	195 5 4	203 0 0	225 0 0	215 0 0
Heavy Rails ..	19 3 8	14 10 6	15 12 0	255 12 6	193 10 8	208 0 0	212 0 0	208 0 0
Light Angles ..	19 9 0	16 7 0	17 12 0	259 5 4	218 0 0	235 5 4	..	..
Light Bars ..	19 9 0	16 17 0	18 3 0	259 5 4	224 10 8	242 0 0	235 0 0	225 0 0
Ferro-Concrete Bars	19 9 0	16 4 0	17 10 0	259 5 4	216 0 0	233 5 4	225 0 0	215 0 0
Black Sheets 25g. hard	21 12 6	23 10 0	25 12 6	288 5 4	313 5 4	341 10 8	255 0 0 (11-14g.)	245 0 0
Galvanised Corrugated sheets 24g. hard ..	26 10 0	26 2 6	30 16 0	353 5 4	348 5 4	410 10 8	320 0 0	320 0 0

*Basis prices in South Africa and U.K. for delivery to their home markets.
Source :—The Iron & Coal Trade Review, London, Dated 6th December, 1946.

APPENDIX VIII.

(*Vide paragraph* 12).

Iron and Steel Price Movement in Australia, U.K. and U.S.A.

Australia—Domestic Prices,

(per ton of 2,240 lbs.)

Date	Pig Iron		Structural Steel		Bar Steel (Merchant Bars)	
	£A	In Rs.	£A	In Rs.	£A	In Rs.
June— 1936 ..	4 5 0	45·62	9 13 0	103·21	9 13 0	103·21
1946 ..	5 15 0	61·504	12 12 8	135·103	12 12 8	135·103

Prices net c.i.f. Australian capital ports.

UNITED KINGDOM.

Date	Pig Iron		Structural Steel		Bar Steel (Merchant Bars)	
	£stg	Rs.	£stg	Rs.	£stg	Rs.
June— 1936 ..	4 0 6	53·6	9 7 6	125·0	8 12 0	114·6
1946 ..	8 8 6	112·3	15 9 6	206·3	17 13 6	235·6

F.O.B. Domestic Prices.

UNITED STATES OF AMERICA.

Year	Pig Iron Basic Furnace.		Structural Steel Mill		Steel Rails Mill		Steel Billets, re-rolling, Pittsburgh.	
	$	Rs.	$	Rs.	$	Rs.	$	Rs.
1936 ..	19·115	63·366	41·664	138·116	36·627	121·418	29·750	98·621
1946 .. *(to 14th Feb.)	23·500	77·902	47·040	155·937	40·000	132·6	34·000	112·71

Average whole-sale Prices in the United States of America.

*Later figures not available. However, from 15th Feb., 1946 fixed prices for Iron and Steel products were increased by approximately $3 to $4 per ton and continue to operate at the new level.

Source: Annual Report of the Australian Tariff Board, for the year 1946.

APPENDIX IX.

(Vide paragraph 15).

(Part A.)

Statement showing the enumeration of certain items and the nature and rate of duty applicable to them at present.

Item No.	Name of article.	Nature of duty.	Standard rate of duty.	Preferential rate of duty if the article is the produce or manufacture of			Duration of protective rates of duty.
				The United Kingdom	A British colony.	Burma	
63(2)	Iron or steel angle, channal, tee, flat, beam, zed, trough and piling—					Free.	
	(a) not fabricated—						
	(i) of British manufacture not coated with other metals.	Protective.	1-1/3 times the excise duty leviable for the time being on steel ingots produced in British India; † or 10 per cent. *ad valorem*, whichever is higher plus one-fifth of the total duty.				March 31st 1947.
	Coated with other metals . .	Protective.	1-1/3 times the excise duty leviable for the time being on steel ingots produced in British India; †or 10 per cent. *ad valorem*, whichever is higher plus one-fifth of the total duty.				March 31st 1947.

†The rate of excise duty on the 1st January, 1947 and until further notice, on all steel ingots produced in British India is Rs. 6 per ton.

Statement showing the enumeration of certain items and the nature and rate of duty applicable to them at present.

Item No.	Name of article.	Nature of duty.	Standard rate of duty.	Preferential rate of duty if the article is the produce or manufacture of			
				The United Kingdom	A British colony.	Burma	Duration of protective rates of duty.
	(*ii*) not of British manufacture .	Protective.	1-1/3 times the excise duty leviable for the time being on steel ingots produced in British India: †plus Rs. 43 percen plus one-fifth of the total duty.				March 31st 1947.
63(2)	(*b*) fabricated— (*i*) of British manufacture.	Protective.	1½ times the excise duty leviable for the time being on steel ingots produced in British India† plus Rs. 40 per ton plus one-fifth of the total duty.			Free	March 31st 1947.
	(*ii*) not of British manufacture .	Protective.	1½ time the excise duty leviable for the time being on steel ingots produced in British India† plus Rs. 40 per ton plus one-fifth of the total duty.				March 31st 1947.
63(3	Iron or steel bar and rod— (*i*) of British manufacture	Protective.	1-1/3 times the excise duty leviable for the time being on steel ingots produced in British India† plus Rs. 10 per ton; or 10 percent. *ad valorem*, whichever is higher plus one-fifth of the total duty.				March 31st 1947.

	(*ii*) not of British manufacture .	Protective.	1-1/3 times the excise duty leviable for the time being on steel ingots produced in British India† plus Rs. 39 per ton ; or 20 per cent. *ad valorem*, whichever is higher plus one-fifth of the total duty.				March 31st 1947.
63(20)	Iron or steel sheets—						
	(*a*) not fabricated—						
	(1) not galvanized—						
	(*i*) of British manufacture*	Protective.	1-1/3 times the excise duty leviable for the time being on steel ingots produced in British India† plus Rs. 11 per ton ; or 10 per cent *ad valorem*, whichever is higher plus one-fifth of the total duty.			Free	March 31st 1947.
	(*ii*) not of British manufacture	Protective.	1-1/3 times the excise duty leviable for the time being on steel ingots produced in British India† plus Rs. 32 per ton plus one-fifth of the total fduty.				March 31st 1947.
	(2) galvanized—						
	(*i*) of British manufacture**	Protective.	1-1/3 times the excise duty leviable for the time being on steel ingots produced in British India† plus Rs. 10 per ton ; or 10 percent. *ad valorem*, whichever is higher plus one fifth of the total duty.				March 31st 1947.
	(*a*)						
	(2)						
	(*ii*) not of British manufacture	Protective.	1-1/3 times the excise duty leviable for the time being on steel ingots produced in British India† plus Rs. 40 per ton plus one-fifth of the total duty.				March 31st 1947.

* Under Government of India, Finance Deprtment (Central Revenue), Notification No. 33, dated the 22nd June, 1935 as amended subsequently, iron or steel sheets of British manufacture, assessable under this sub-item are exempt from so much of the duty as is in excess of Rs. 44-12-4/5 per ton.

**Under Government of India, Finance Department, (Central Revenue), Notification No. 33, dated the 22nd June, 1935 as amended subsequently iron or steel sheets of British manufacture, assessable under this sub-item are exempt from so much of the duty as in excess of Rs. 54-6-2/5 per ton.

†The rate of excise duty on the 1st January 1947, and until further notice, on all steel ingots produced in British India is Rs. 4 per ton.

Statement showing the enumeration of certain items and the nature and rate of duty applicable to them at present.

Item No.	Name of article.	Nature of duty.	Standard rate of duty.	Preferential rate of duty if the article is the produce or manufacture of			
				The United Kingdom	A British colony.	Burma	Duration of protective rates of duty.
	(b) fabricated—						
	(1) not galvanized—						
	(i) of British manufacture *	Protective.	1½ times the excise duty leviable for the time being on steel ingots produced in British India† plus Rs. 12 per ton; or 10 per cent. *ad valorem*, whichever is higher plus one-fifth of the total duty.				March 31st 1947.
	(ii) not of British manufacture	Protective.	1½ times the excise duty leviable for the time being on steel ingots produced in British India †plus Rs. 35 per ton plus one-fifth of the total duty.				March 31st 1947.
	(2) galvanized— of British manufacture **	Protective.	1½ times the excise duty leviable for the time being on steel ingots produced in British India† plus Rs. 11 per ton; or 10 per cent. *ad valorem*, whichever is higher plus one-fifth of the total duty.				March 31st 1947.

	(b)						
63(20)	(2)						
	(ii) not of British manufacrure	Protective.	1½ times the excise duty leviable for the time being on steel ingots produced in British India† plus Rs. 44 per ton plus one-fifth of the total duty.				March 31st 1947.
63(25)	Iron or steel, wire, other than barbed or stranded wire, wire rope or wire netting; and iron or steel wire nails					Free	
	(i) of British manufacture	Protective.	1½ times the excise duty leviable for the time being on steel ingots produced in British India† plus Rs. 25 per ton plus one-fifth of the total duty.				March 31st 1947.
	(ii) not of British manufacture	Protective.	1½ times the excise duty leviable for the time being on steel ingots produced in British India† plus Rs. 60 per ton plus one-fifth of the total duty.				March 31st 1947.

* Under Government of India, Finance Department (Central Revenue), Notification No. 33, dated the 22nd June, 1935 as amended subsequently, iron or steel sheets of British manufacture assessable under this sub-item are exempt from so much of the duty as is in excess of Rs. 49-3 1/5 per ton.

**Under Government of India, Finance Department (Central Revenues), Notification No. 33, dated the 22nd June, 1935 as amended subsequently, iron or steel sheets of British manufacture assessable under this sub-item are exempt from so much of the duty as is in excess of Rs. 60 per ton.

†The rate of excise duty on the 1st January, 1947, and until further notice, on all steel ingots produced in British India is Rs. 4 per ton.

APPENDIX IX.

(Vide paragraph 15).

(Part B.)

Statement showing the proposed changes in the enumeration of items shown in part A of this Appendix and the suggested nature and rate of duty applicable to them.

Item No.	Name of article.	Nature of duty.	Standard rate of duty.	Duration of protective rates of duty.
63 (2)	Iron or Steel angle, channel, tee, flat (excluding alloy, tool and special steel flat), beam, zed, trough & pling—			March 31st 1947.
	(a) not fabricated—			
	(i) of British manufacture not coated with other metals.	Revenue ..	To be decided by the Government	Do.
	coated with other metals ..	Do. ..	Do.	
	(ii) not of British manufacture ..	Do. ..	Do.	Do.
	(b) fabricated—			
	(i) of British manufacture	Do. ..	Do.	
	(ii) not of British manufacture ..	Do. ..	Do.	Do.
63 (3) A	Iron or Steel (excluding alloy, tool and special steel), bar or rod—			
	(i) of British manufacture	Do. ..	Do.	
	(ii) not of British manufacture	Do. ..	Do.	

63 (3) B	Alloy, tool and special steel rod, bar or flat—			
	(i) of British Manufacture	Protective ..	1 1/3 times the excise duty leviable for the time being on steel ingots produced in British India † *plus* Rs. 10 per ton ; or 10 per cent *ad valorem*, whichever is higher plus one-fifth of the total duty.	March 31st 1948.
	(ii) not of British manufacture ..	Do. ..	1 1/3 times the excise duty leviable for the time being on steel ingots produced in British India† *plus* Rs. 39 per ton ; or 20 per cent. *ad valorem*, whichever is higher plus one-fifth of the total duty.	Do.
63 (20) A	Iron or Steel sheets (excluding high silicon electrical sheets)—			
	(a) not fabricated—			
	(1) not galvanized—			
	(i) of British manufacture ..	Revenue ..	To be decided by the Government.	
	(ii) not of British manufacture ..	Do. ..	Do.	
	(2) galvanized—			
	(i) of British manufacture ..	Do. ..	Do.	
	(ii) not of British manufacture ..	Do. ..	Do.	
	(b) fabricated—			
	(1) not galvanized—			
	(i) of British manufacture ..	Do. ..	Do.	
	(ii) not of British manufacture ..	Do. ..	Do.	
	(2) galvanized—			
	(i) of British manufacture ..	Do. ..	Do.	
	(ii) not of British manufacture ..	Do. ..	Do.	

†The rate of excise duty on 1st January, 1947, and until further notice, on all steel ingots produced in British India is Rs. 4 per ton.

(APPENDIX IX, Part B—*contd.*)

(*Vide paragraph* 15).

Statement showing the proposed changes in the enumeration of items shown in part A of this Appendix and the suggested nature and rate of duty applicable to them.

Item No.	Name of article.	Nature of duty.	Standard rate of duty.	Duration of protective rates of duty.
63 (20) B	High silicon electrical steel sheets—			
	(*i*) of British manufacture	Protective ..	1 1/3 times the excise duty leviable for the time being on steel ingots produced in British India plus Rs. 11 per ton ; or 10 per cent. *ad valorem*, whichever is higher plus one-fifth of the total duty.	March 31st, 1948.
	(*ii*) not of British manufacture	Do. ..	1 1/3 times the excise duty leviable for the time being on steel ingots produced in British India plus Rs. 32 per ton plus one-fifth of the total duty.	Do.
63 (25) A	Iron or steel (excluding high carbon or spring steel) wire other than barbed or stranded wire, wire rope or wirenetting : and iron or steel wire nails—			
	(*i*) of British manufacture	Revenue ..	To be decided by the Government.	
	(*ii*) not of British manufacture	Do. ..	Do.	
63 (25) B	High carbon or spring steel wire—			
	(*i*) of British manufacture	Protective ..	1 1/3 times the excise duty leviable for the time being on steel ingots produced in British India plus Rs. 25 per ton plus one-fifth of the total duty.	March 31st, 1948.
	(*ii*) not of British manufacture	Do. ..	1 1/3 times the excise duty leviable for the time being on steel ingots produced in British India plus Rs. 60 per ton plus one-fifth of the total duty.	Do.

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REPORT

OF THE

Indian Tariff Board

ON THE

ANTIMONY INDUSTRY

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REPORT

OF THE

Indian Tariff Board

ON THE

ANTIMONY INDUSTRY

PERSONNEL OF THE BOARD

SIR R. K. SHANMUKHAM CHETTY, K.C.I.E.—PRESIDENT.

MR. C. C. DESAI, C.I.E., I.C.S.—MEMBER-SECRETARY.

DR. NAZIR AHMAD, O.B.E.—MEMBER.

DR. H. L. DEY, D.Sc. (Lond.)—MEMBER.

DR. B. K. MADAN, M.A., PH.D.—DEPUTY SECRETARY.

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REPORT ON THE ANTIMONY INDUSTRY

Reference to Board.

The Government of India, Department of Commerce, in their Resolution No. 218-T(55)/45, dated the 3rd November 1945, set up this Tariff Board for the purpose of investigating claims from industries, which were started or developed in wartime, or the starting of which was considered essential by Government under conditions created by the war, to assistance or protection during the transition period, that is, until the establishment of a permanent machinery to give effect to their tariff policy in the post-war period. Antimony is one of the industries covered by this Resolution (Appendix I).

Scope of Enquiry.

2. The Board has to report whether the industry satisfies the following conditions :—

"(1) that it is established and conducted on sound business lines ; and

(2) (*a*) that, having regard to the natural or economic advantages enjoyed by the industry and its actual or probable costs, it is likely within a reasonable time to develop sufficiently to be able to carry on successfully without protection or State assistance ; or

(*b*) that it is an industry to which it is desirable in the national interest to grant protection or assistance and that the probable cost of such protection or assistance to the community is not excessive. Where a claim to protection or assistance is found to be established, i.e., if condition (1) and condition (2) (*a*) or (*b*) are satisfied, the Board will recommend :

(i) whether, at what rate and in respect of what articles, or class or, description of articles, a protective duty should be imposed ;

(ii) what additional or alternative measures should be taken to protect or assist the industry ; and

(iii) for what period, not exceeding three years, the tariff or other measures recommended should remain in force."

In making its recommendations the Board has been asked to give weight to the interests of the consumers in the light of the prevailing conditions and also to consider how its recommendations would affect industries using the articles in respect of which protection may be granted. The Board has further been requested to complete the inquiry with all possible expedition as relief where found necessary must be afforded without delay and before it becomes too late.

3. We have discussed in our report on calcium chloride how the terms of reference to this Board differ from those governing the Tariff Boards set up before 1939. It is unnecessary to traverse the same ground again in this report and it will be sufficient to recapitulate the main points. The conditions governing the eligibility of an industry for protection or assistance now are less hard and rigid than in the pre-war days. Government are embarking upon an extensive programme of industrialization for the implementation of which a liberal tariff policy is necessary in an under-industrialised country like India. As the action to be taken now will be part of a short range policy pending formulation of a permanent tariff policy, the criterion to be adopted would be that unless an industry started during wartime suffered from inherent economic handicaps incapable of being remedied,

there would be a *prima facie* case for keeping the industry alive until a fuller and more detailed examination is undertaken at a later stage under normal conditions and as part of a long-term policy of protection.

Action taken.

4. On the 28th of November 1945, the Board issued a press communique, inviting associations, firms or persons, including producers, importers and consumers, directly interested in this industry, or dependent upon this industry for their raw materials, who wished their views to be considered by the Board, to submit their representations by the end of December 1945. The representations were required to be supported by facts and figures regarding, *inter alia*,

(1) domestic demand for the commodity;

(2) volume and cost of imports;

(3) cost of production;

(4) general financial position of the producers; and

(5) the exact nature of protection or assistance applied for.

The Board also issued a printed questionnaire inviting detailed replies by the 15th March 1946. As there is only one factory producing antimony, namely, the Star Metal Refinery, Bombay, the inquiry was comparatively simple, though a certain amount of complication was introduced by reason of the fact that antimony is not what may be said to be a consumer article but a raw material needed in several other industries, such as type metals, bearing metals, alloys, battery plates, munitions etc. The Refinery was visited by the Board on the 25th February 1946 when we were taken round by Mr. Motichand Shah, one of the proprietors of the concern, and Mr. Schwarz, the Technical Adviser of the Company with whose help the factory is planned, designed, constructed and operated. It was not possible for the Board to visit the mine in Chitral in the North-West Frontier Province from where the antimony ore comes for being smelted and refined in Bombay. Oral evidence in the case was recorded in Bombay on the 19th, 20th and 21st March 1946. Besides the producers, the persons who were examined orally included representatives of firms who were interested in the import of antimony before the war, representatives of the Bombay Baroda and Central India and the Great Indian Peninsular Railways, who are large consumers of antimony, a representative of the bearing metal industry, a representative of the type metal industry, and a representative of the storage battery industry.

History of the industry.

5. Before the war, antimony was not produced in India. The main source of supply was China, although a small quantity of higher-grade antimony was also imported from the United Kingdom for certain special uses. During the period of the war the Chinese source was cut off from India and antimony became in short supply and India had to look for its own source of supply. Before 1939, the only used Indian source of antimony was a deposit of ore near the Shigri Glacier in Lahaul (Kangra District, Punjab, railhead Pathanakot), which is reported to have been worked between 1905 and 1908. In 1905, about 15 tons of ore were shipped from India to the United Kingdom. Access to the site is difficult as all labour and supplies have to be transported over a pass at an altitude of 14,500 feet. The deposits are at an altitude of 13,500 feet and work is possible only for two or three months in the year. Fortunately, however, just about when the war started, a new antimony ore deposit, less inaccessible than the Lahaul deposits, was discovered at Shagor in the Chitral State, and a company was floated under the name of the

Chitral Mining Co., Ltd., for the exploitation of these deposits. The new mine is located approximately 13 miles north of Chitral and 175 miles from the nearest railhead, Durgai, beyond Peshawar. The mining operations take place at an altitude of approximately 7,500 feet. The ore is handpicked at the mine and carried to Durgai partly by lorries and partly on mule back which is the only means of transport for crossing a pass at an altitude of 10,200 feet. Since then, certain improvements have been made in quarrying, and tunnels and adits have been driven to facilitate the mining operations. The Mining Company, which is practically under the same management as the Star Metal Refinery, sells the ore to the Refinery which takes it over at Bombay and subjects the ore to further processes in order to convert it into "star metal" which is at least 99 per cent. pure antimony. Before the war, there was a small refinery in Calcutta, called the Napier Paint Works, which used to smelt antimony ore received from the Burma deposits, but with the fall of Burma the supplies of ore ceased and the factory has gone out of existence. The present inquiry has therefore been confined to the Chitral Mining Company and the Star Metal Refinery, Bombay. The Star Metal Refinery is a partnership concern, but it has been agreed by the management that they will have no objection to the concern being converted into a public limited company in case the industry is stabilised with State assistance.

6. The industry was set up under direct encouragement from the Supply Department which gave assistance in the matter of acquiring and constructing plant and machinery required by the Refinery. The entire output of the factory was placed at the disposal of the Central Government which released it from time to time against demands, giving priority to war demands. The industry submitted an application to Government in September 1944, pointing out that the industry was started during the war, that all raw materials including ore and chemicals were available in the country, that the productive capacity of the Refinery was more than sufficient to meet all normal requirements of the country, and that the industry should be protected from unfair competition by means of stoppage of imports. The application of the industry for protection and assistance was accordingly referred to the Board for investigation and report when the Board was set up to consider cases of wartime industries.

Description of process.

7. Antimony ore (or stibnite, as it is technically called and the chemical composition of which is antimony sulphide with traces of lead and copper) is brought from Chitral to Bombay where all the smelting processes take place. The antimony content in the Chitral ore is between 30 and 40 per cent. The first process in the production of antimony at present employed is what is called the "liquating" process. This process is preliminary to the next process called the "precipitation" process. In the liquation process, the ore in crushed condition is heated to about 550°C when the antimony sulphide becomes liquid and separates by gravity from the gangue of the ore. The liquated metal, called antimony crude, is collected in moulds and contains usually 71 per cent. antimony. During the liquating process, some of the antimony gets oxidised and evaporates, but all the antimony oxide is collected for recovery of as much of the metal as possible. The antimony crude is then treated by the precipitation method, which consists in the mixing of the crude with soda-ash and mild steel scrap in a proportion sufficient to extract all the sulphur in the crude. The freed antimony metal being heavier sinks or "precipitates", which gives the process its name. The precipitation metal, also known as "single", contains 90 to 98 per cent. antimony and is then subjected to a form of roasting-reduction-process by which "star metal" is produced. The

recovered oxides are treated in a reduction furnace with a view to extracting " single " which is then starred in the usual way.

8. The Refinery in its endeavours to reduce the cost of production constructed a blast-furnace, based upon pilot plant experiments which gave promise of satisfactory results, but it was found to be uneconomical when actually operated. The main difficulty appears to be the comparatively low recovery of antimony from stibnite by the blast-furnace method. The Refinery has been obliged to discard this method which involved it in a loss of over a lakh of rupees.

9. The firm has a plan for reducing the cost of production by installing a flotation plant at the minehead in Chitral and bringing to Bombay antimony crude with a 71 per cent. antimony content in place of the antimony ore with a 30 to 40 per cent. antimony content. It will be seen from our analysis of the cost of production later in the report that the main item in the cost of production is transport from the minehead to the railhead at Durgai ; and therefore the installation of a flotation plant at the minehead will result in a very substantial reduction in the cost of production of the metal. An order for the plant has already been placed and delivery is expected shortly, but the plan of the Refinery is to operate the plant in Bombay until it is found to yield satisfactory results and then to transfer it to Chitral. Need for experiments and research on evolving alternative and economical processes is not lost sight of by the Refinery and some provision has been made for the same in calculating the cost of production.

Uses.

10. The most important use of antimony is in the formation of alloys and the most important of these alloys are those with lead, tin and copper. The principal alloys in which antimony is used are

(1) type metals containing 11 to 30 per cent. antimony, 3 to 25 per cent. tin, and the remainder lead ;

(2) anti-friction bearing metals containing 6 to 18 per cent. antimony ;

(3) britannia metal which is an alloy of tin and antimony and which is used for cups, tankards and cheap artistic wares.

Antimony is also used in the grids of electrical storage batteries in alloy with lead. The use of antimony in munition production is in the manufacture of shrapnel bullets which consist of an alloy of 86 per cent. lead and 14 per cent. antimony. Antimony is also used in bullets for small arms. A number of antimony compounds are of commercial importance especially in the chemical industry and in the pharmaceutical industry. No data are available to allocate with any degree of accuracy the consumption of antimony among different users, but the following table shows the approximate distribution of antimony amongst various uses in normal times :—

	Percentage of total consumption.
Type metal	40
Anti-friction bearing metal	25
Storage batteries	15
Munitions production	5
Miscellaneous (drugs, chemicals, fire resistance paints, solders, electrical cables, toys, etc.)	10
Safety matches (in the form of crude antimony)	5
	100

Imports.

11. As mentioned in the preceding paragraph, there are no statistics to show what the imports of antimony were before the war. China was the main supplier, the next being the United Kingdom. The figures of export of antimony from the United Kingdom before the war show only a small quantity being exported to all the British Possessions. For instance, the total quantity exported to all British Possessions was 52 tons in 1935, 57 tons in 1936, 55 tons in 1937 and 73 tons in 1938. Figures of later years are not available owing to the non-publication of statistics during wartime.

12. Import of antimony into India during wartime was controlled by the Director-General of Munitions Production. Figures made available by him show that 200 tons were imported in 1943, 150 tons in 1944 and 125 tons in 1945, the imports being mainly from the United Kingdom, only a small quantity being imported from the United States of America, probably under Lease/Lend.

13. The practice followed by Government was to take both the imports and the local production into consideration and to issue release orders in favour of essential industries, regard being had to the stocks. Preference was given to the disposal of local production, the imported metal being held in reserve for meeting emergencies. As a result of this policy, a reserve has been built up consisting of 50 tons which is at present in the possession of Government.

Domestic production.

14. The Indian production of antimony is confined to only one factory, viz., the Star Metal Refinery, Bombay, production in which started in 1941. The figures of production are as follows :—

	Tons.
1941	56
1942	156
1943	130
1944	105
1945	157
1946 (up to end of March)	50

The Refinery in Bombay has been designed to produce 200 tons of antimony annually with a supply of 30 per cent. ore, though this target has not, for various reasons, been realised as yet and the production so far has not exceeded the figure of 160 tons. It is expected that in 1946, 200 tons would be produced, 50 tons having been produced in the quarter ending March 1946. The output can be stepped up even to 400 tons by the addition of two liquating furnaces, should the home demand necessitate such expansion. In fact the present equipment is sufficient to produce 500 to 600 tons of antimony per annum if ore of 70 per cent. purity is supplied as a result of the operation of the flotation plant in Chitral. There is no reliable estimate of the volume of ore deposits in Chitral, but it is presumed that the deposits are sufficient to last for a number of years. The deposits in the Kangra district which are not being worked are reported to be much larger.

15. As, before the war, there was no local production of antimony, the annual consumption can be judged from the quantities imported. Unfortunately, antimony is not shown separately in the sea borne trade statistics and we have therefore to depend upon records of importers and estimates of requirements made by the different consumers. It was represented to the Board by some of the importers that the average annual requirement of India of antimony before the war was in the neighbourhood of 1,000 tons but the Board has found it difficult to accept this figure as accurate or reasonable. The Board's estimate is between 250 and 300 tons per year. This is borne out by the fact that the type metal industry consumed an estimated quantity of between 80 and 100 tons a year which, it was estimated, represented nearly 40 per cent of the total consumption of antimony in the country. A close control on the distribution of antimony was exercised in wartime by the Director-General of Munitions Production in Calcutta who should therefore be in a position to estimate the requirements of the country in antimony. According to him also the probable future demand may be put down at between 200 and 250 tons. It may be that in wartime, owing to the relative shortage of other metals required for making alloys with antimony, there was a reduced demand for antimony, but as against that is the factor that the quantity required by railways and for munition production must have gone up owing to their larger activities. After taking all these factors into consideration, the Board estimates the probable future demand at about 300 tons per annum. It may be mentioned, however, that there is a possibility of the storage battery industry and the fire resistant paint industry being developed in the near future and if this happens the quantity of antimony required may be much larger.

Annual consumption.

16. Taking the imports and Indian production together during the last three years, for which, owing to the existence of control, dependable data are available, the annual supplies available come to 330 tons in 1943, 255 tons in 1944, and 282 tons in 1945. The existence of a reserve indicates that the annual consumption in the last three years could not have exceeded 250 tons.

17. *Cost of ore.*—The cost of production of antimony is divided into two parts, namely, cost of antimony ore and cost of conversion of the ore into metal. The products are handled by two separate companies, although there is unified control and management for all practical purposes. When the Supply Department entered into a contract for the supply of antimony by the Star Metal Refinery, the price at which the Refinery purchased the ore from the Mining Company was assumed as reasonable and the costing was confined to the accounts of the Refinery. The Mining Company sells the ore to the Refinery ex-Bombay at Rs. 510 per ton. The detailed breakdown of this figure is as under :—

Cost of production.

	Rs.	
Mining and transport charges	341	per ton.
General services, supervision and head office charges.	90	,, ,,
Total cost of production ..	431	,, ,,

	Rs.	
Profit taken by the company at 10 per cent. of the cost of production.	43	per ton.
Selling price (at Durgai)	474	,, ,,
Railway freight from Durgai to Bombay ..	35	,, ,,
Cost ex-Bombay	509	,, ,,
Or in round figures ..	510	,, ,,

This is obviously a very high figure and constitutes the crux of the problem. The accounts of the Mining Company were subjected to a summary check but it was found that there was hardly any scope for reduction. The bulk of this amount (roughly Rs. 300 out of a total of Rs. 510) represents the cost of haulage by lorries and on mule back from the mine to the railhead. The only way to lower the costs would be to reduce the amount of ore to be transported and this would be done when concentration is undertaken at the minehead by installation of a flotation plant which is now on order. That improvement would bring about a reduction in the tonnage to be transported since the concentrated ore will be of 71 per cent. purity instead of 30 per cent. purity as at present.

18. *Cost of antimony previous to 1946.*—The accounts of the Star Metal Refinery have been cost-investigated more than once by the Supply Department. The first costing was carried out in September 1942 in respect of the output for the period from January 1941 to June 1942. The second costing was carried out in February 1943 for the metal produced during November and December 1942. A third costing has been recently carried out in respect of a particular campaign of 27 tons of antimony produced in the blast-furnace which was built with high hopes but which is being abandoned owing to its having proved an uneconomical proposition. The Board had the advantage of seeing these cost reports, copies of which were made available to it by Government with the previous consent of the Refinery. The Refinery also submitted statements showing both total cost of production and unit cost of production, the unit adopted being 1 cwt. The Refinery was asked to submit similar statements indicating the probable cost of production when the flotation plant is installed at the minehead and when every possible attempt has been made to bring down the present high cost of production. The Board also had before it the cost of production for 1946 as estimated by the Refinery. All these statements show that the cost of production per unit plus profit element was as follows :—

	Rs.	
1942-43	223·50	per cwt.
1943-44	301·25	,,
1944-45	289·00	,,
Average for the period of three years ..	272·18	,,

The probable cost of production in 1946 is worked out by the firm at Rs. 215 per cwt. The Government rate-contracts allowed a price of Rs. 161 per cwt. in the first contract and a price of Rs. 228 in the second contract. The firm's estimated cost of production, exclusive of profit, after installation of the flotation plant at Chitral

is Rs. 92 per cwt. It may be pointed out at this stage that before the war the price of Chinese antimony was about Rs. 42 per cwt. and that it had risen to about Rs. 61 in the early days of the war when trade with China was still open. The price of English antimony was somewhat higher, being in the neighbourhood of Rs. 70 to Rs. 75 in the years between 1935 and 1938. The landed cost of English antimony during wartime ranged from Rs. 110 to Rs. 115 per cwt. Judging by the prices of foreign antimony before and during the war, the cost of production of Indian antimony is decidedly high. If there was no scope for reduction in the cost of production as shown at present, there would be no case for protection as it could not be said that the industry was likely to stand on its own legs ever in future without protection or assitance which would constitute an exorbitant burden on the consumers, particularly when the consumers happen to be other industries, such as type metal industry, bearing metal industry and storage battery industry. The future estimate of Rs. 92 is, however, hopeful and justifies the sustenance of the industry during the transition period in the course of which it should be possible to import the necessary plant and machinery and to instal it at the minehead as also to examine the feasibility of carrying out certain improvements such as construction of a 40-mile road over the Dir Pass at an altitude of 10,200 feet and the supply of power at low rates either through hydroelectric or other sources at Chitral. Even the estimate of Rs. 92 per cwt. representing the possible cost of production of an antimony from 1948 onwards is high and must, therefore, be still further reduced, particularly if the Chinese antimony again enters the international market at anything like the pre-war level of price. The price difference between the Chinese antimony and English antimony was of the order of Rs. 10 to Rs. 15 per cwt., the Chinese antimony being cheaper but of less dependable quality.

19. *Estimated cost in 1946.*—The statement below gives an estimate of the cost of production as given by the firm for the year 1946, the output being assumed to be 200 tons :—

	Per cwt. In rupees.
I. Manufacturing expenses :—	
(1) Raw materials—	
(*a*) Antimony ore	127·50
(*b*) Soda ash, iron scrap, etc.	4·60
(2) Power and fuel	12·45
(3) Ordinary current repairs and maintenance of buildings, plant and machinery	4·00
(4) Labour	15·00
(5) General services, supervision, and local office charges	12·00
(6) Expenditure on quality control, research and development	....
(7) Packing charges	1·50
(8) Miscellaneous, water, lighting, royalties, etc. ..	....
	177·05

II. Overhead charges :—

(9) Depreciation	7·00
(10) Interest on borrowed capital	0·56
(11) Managing Agents' charges	3·20
(12) Directors' and Auditors' fees	....
(13) Insurance	0·85
(14) Rents, rates and taxes, excluding income-tax and royalties	1·00
(15) Selling expenses	....
(16) Miscellaneous	....
(17) Head office expenses	5·00
	17·61
Grand total (I and II) ..	194·66
Add—as profit ..	20·00
Net total ..	214·66

Scrutiny of the 1946 cost estimate.

20. Each item of the above cost statement was carefully scrutinised by the Board and reductions have been made wherever possible. The antimony ore which is taken by the Refinery at Rs. 510 per ton has been calculated by us at the rate of Rs. 490 per ton, the figure having been revised by allowing a smaller profit on the block and working capital. The Mining Company had calculated a profit of 10 per cent. on the estimated cost of production which worked out to Rs. 431 per ton, whereas the Board has allowed only Rs. 25 per ton calculated as under :—

Fixed capital consists of Rs. 1·25 lakhs invested at the mine plus Rs. 0·5 lakh representing the share to be debited to antimony on the value paid for the mining concession. A profit of 10 per cent. has been allowed on this figure of Rs. 1·75 lakhs giving a sum of Rs. 17,500. The working capital comes to Rs. 2 lakhs on which a return of 4 per cent. has been permitted, thus allowing a sum of Rs. 8,000. The total comes to Rs. 25,500 or, in round figures, Rs. 25,000. The estimated production of the ore is 1,000 tons, just sufficient to yield 200 tons of antimony metal. It gives a profit of Rs. 25 per ton in so far as the ore is concerned. The total cost of the ore is thus as follows :—

	Rs.		
Cost of mining	431	per ton of ore.	
Profit of the Mining Company (as against Rs. 43 assumed by the firm in calculating the existing price of Rs. 510 per ton)	25	,,	,,
Total (at the railhead Durgai) ..	456	,,	,,
Railway freight from Durgai to Bombay ..	35	,,	,,
Total ..	491	,,	,,
Or in round figures ..	490	,,	,,

Assuming that 1,000 tons of ore are required for 200 tons of antimony, the cost of antimony ore per cwt. would, under the revised calculation, be Rs. 122·50 per cwt. as against Rs. 127·50 estimated in the statement of the Refinery. The Refinery has estimated Rs. 12 per cwt. under "General services, supervision and local office charges," on the basis of an expenditure of Rs. 48,000 for the year as a whole. The Board went into the details of this expenditure and is satisfied that it is capable of reduction. Half the amount is spent on the remuneration of the Technical Adviser, which is regarded by the Board as unreasonably high. The suggestion of the Board that the expenditure under this item should be reduced to Rs. 40,000 has been accepted by the Refinery, thus enabling the unit cost to be reduced from Rs. 12 to Rs. 10 per cwt. Nothing had been shown under the item "Quality control, research and development," although some expenditure is actually incurred. The Board considers that the expenditure under this item should be separately shown and that the research activities should be increased if the cost of production is ultimately to be brought down and the industry is to survive under normal conditions either without protection or with the minimum degree of protection. On an estimated annual output of 200 tons, an expenditure of Rs. 12,000 would be justified and therefore the Board has allowed Rs. 3 per cwt. in the statement of cost of production approved by it. The interest on borrowed capital is omitted as profit is allowed on both the fixed capital and the working capital at the end of the statement. The statement submitted by the Refinery includes a provision of Rs. 3·20 per cwt. as Managing Agents' charges. This figure should, according to the Refinery itself, have been Rs. 3·00 instead of Rs. 3·20. It was explained that this remuneration was claimed by the two partners who are in administrative charge of the work of the Refinery and who are devoting a considerable portion of their time to the affairs of the factory. The Board, however, has taken the view that the Managing Agents were already remunerated by way of a return on the capital invested by them in the concern and that fairly substantial sums were being spent on technical advice and general supervision, making it difficult to justify an additional charge of Rs. 12,000 per annum. The Managing Agents have agreed to delete this item. Under the item "Head office expenses," a sum of Rs. 5 per cwt. had been provided giving a total expenditure of Rs. 20,000 which the Board has found it difficult to accept. After discussion it has been agreed that the amount could be reduced to Rs. 12,000, thus reducing the unit cost from Rs. 5 to Rs. 3 per cwt.

21. Based on the above calculations, the Board estimates the cost of production in 1946 as follows :—

	Rs. per cwt.
1. Manufacturing expenses :—	
(1) Raw materials—	
(*a*) Antimony ore	122·50
(*b*) Soda ash, iron scrap, etc.	4·60
(2) Power and fuel	12·45
(3) Ordinary current repairs and maintenance of building, plant and machinery	4·00
(4) Labour	15·00
(5) General services, supervision, and local office charges .	10·00

	Rs. per cwt.
(6) Expenditure on quality control, research and development	3·00
(7) Packing charges	1·50
(8) Miscellaneous, water, lighting, royalties, etc. ..	....
Total ..	173·05
II. Overhead charges :—	
(9) Depreciation	7·00
(10) Interest on borrowed capital	....
(11) Managing Agents' charges	....
(12) Directors' and Auditors' fees	....
(13) Insurance	0·85
(14) Rents, rates and taxes, excluding income-tax and royalties	1·00
(15) Selling expenses	....
(16) Miscellaneous	....
(17) Head office expenses	3·00
Grand Total (I and II) ..	184·90
Or ..	185·00

The Board's estimate is thus Rs. 185 per cwt. as against the firm's estimate of Rs. 194·66 per cwt.

22. As the recommendations of the Board cover a period of three years we have tried to estimate what the cost of production would be over the whole three-year period. We found that the only item in which any substantial change could be effected was raw materials, the cost of which would depend upon the installation of the flotation plant at Chitral. We went into this matter in some detail with the Company but we could not form any accurate estimate of the time when the flotation plant would be in full working order in Chitral. The plant is on order, and at one time delivery was promised in November 1945 and later in April 1946, but the latest advice received by the firm is that shipping is not expected until June. Even if the plant is received in Bombay by September, the intention of the Company, to which we cannot take objection, is that it should be installed at the Refinery in Bombay where it should be worked for a few months until the plant is found to be in satisfactory working order. For a certain period of the year, the tract between Peshawar and Chitral is closed to all traffic and it is only when the road is thrown open that the plant could be shifted to Chitral. It therefore seems that the earliest period by which the plant could be installed at Chitral would be June or July 1947. The ore concentrated thereafter may become available for being smelted in Bombay some time in 1948. It therefore follows that there would be no change in the cost of production in 1947 but that a fall may be expected in 1948 if all operations proceed according to plan. For the present, therefore, we have considered it reasonable to assume the present cost of production for the entire period, including 1948. But in view of the possibility of a reduction in the cost of production some time in 1948, we recommend that the position should be reviewed towards the end of 1947, by when it will be clear whether any allowance could be made for reduced cost of production.

23. Although it is outside our province to make any recommendation as to what should be done after 1948, it is relevant to examine the possible cost of production after 1948, to establish the case for protection, if for no other purpose. The Refinery has submitted its estimate of cost of production after 1948, which is reproduced below :—

STATEMENT SHOWING COMPANY'S ESTIMATE OF COST OF PRODUCTION PER UNIT WHEN FLOTATION PLANT IS INSTALLED IN CHITRAL (i.e. AFTER 1948)

	Rs. per cwt.
I. Manufacturing expenses :—	
(1) Raw materials	50·70
(2) Power and fuel	4·00
(3) Ordinary current repairs and maintenance of buildings, plant and machinery	3·00
(4) Labour	6·00
(5) General services, supervision and local office charges ..	10·00
(6) Expenditure on quality control, research and development	....
(7) Packing charges	1·00
(8) Miscellaneous, water, lighting, royalties, etc. ..	....
Total ..	74·70
II. Overhead charges :—	
(9) Depreciation	7·03
(10) Interest on borrowed capital	0·54
(11) Managing Agents' charges	3·00
(12) Directors' and Auditors' fees	....
(13) Insurance	0·82
(14) Rents, rates and taxes, excluding income-tax and royalties	0·96
(15) Selling expenses	....
(16) Miscellaneous	....
(17) Head office expenses	4·90
	17·25
Grand Total (I and II) ..	91·95
Credit for materials recovered, if any ..	Nil.
Net Total ..	91·95

Total quantity assumed = 4,000 cwts.

The unit adopted is cwt.

It will be observed that the Company expects that the cost of production of antimony with concentration of ore at Chitral would be in the neighbourhood of Rs. 92 per cwt., to which profit will have to be added to arrive at a reasonable selling price. We have scrutinised this estimate and have made certain reductions which would place the cost of production at Rs. 83·31 per cwt. which, together with profit at Rs. 4·7 per cwt. would give a reasonable selling price at Rs. 88·01 per cwt. Our estimate of the cost of production of 100 cwt. of antimony from 1949 onwards is given below :—

		Rs.
I.	*Manufacturing expenses :—*	
(1)	Raw materials	48·00
(2)	Power and fuel	4·00
(3)	Ordinary current repairs and maintenance of buildings, plant and machinery	3·00
(4)	Labour	6·00
(5)	General services, supervision and local office charges ..	8·50
(6)	Expenditure on quality control, research and development	1·50
(7)	Packing charges	1·00
(8)	Miscellaneous, water, lighting, royalties, etc. ..	1·00
	Total ..	72·00
II.	*Overhead charges :—*	
(9)	Depreciation	7·03
(10)	Interest on borrowed capital	..
(11)	Managing Agents' charges	..
(12)	Directors' and Auditors' fees	..
(13)	Insurance	0·82
(14)	Rents, rates and taxes, excluding income-tax and royalties	0·96
(15)	Selling expenses	..
(16)	Miscellaneous	..
(17)	Head office expenses	2·50
	Total ..	11·31
	Grand Total (I and II) ..	83·31
	Add—Profit ..	4·70
	Net Total (selling price) ..	88·01

It will be seen from the above estimate that the cost of production from 1949 onwards will not be much above the present c.i.f. price of English antimony, or even the pre-war c.i.f. price of the same. On the basis of the pre-war prices of Chinese antimony, there is a possibility that, even after 1949, there would be a substantial difference between the price of Chinese antimony and that of Indian antimony.

Fair selling price.

24. We shall now determine the price that should be assured to the home manufacturer in the period 1946-48. We have allowed a profit of 10 per cent. on the gross block account and of 4 per cent. on the working capital. The gross block account of the Refinery is Rs. 3 lakhs on which a return of Rs. 30,000 would thus be admissible. This return cannot be considered excessive in the conditions of to-day, with all the high charges of income-tax and company tax at present prevailing. The working capital of the Refinery is Rs. 2½ lakhs on which a profit at the rate of 4 per cent. would come to Rs. 10,000. The total profit thus comes to Rs. 40,000 on an output of 20 tons, i.e. 400 cwts. of antimony. The per cwt. rate works out to Rs. 10. The cost of production as approved by the Board comes to Rs. 185 per cwt. and, if the profit of Rs. 10 per cwt. is added to this, the fair selling price would come to Rs. 195 per cwt. If the output of the Refinery should increase to cope with the increased home demand, there should be a further reduction in the cost, although it is appreciated that there would not be a substantial reduction inasmuch as more than 50 per cent. of the cost of production is represented by raw materials, the cost accounted for by overheads being relatively less. While this is the fair selling price on the basis of cost of production, we do not propose that the consumers should be required to pay this price for reasons which will be explained presently.

Cost of import.

25. Before the war, China was the main source of supply of antimony, only a small quantity coming from the United Kingdom. The c.i.f. price of Chinese antimony before 1939 was about Rs. 35 per cwt., the selling price being Rs. 42 per cwt. There was a duty of 25 per cent. on antimony. In the early days of the war, the c.i.f. price of Chinese antimony was about Rs. 49 per cwt. and the selling price Rs. 61 per cwt. The c.i.f. price of English antimony before the war was about Rs. 60 per cwt. and during the war Rs. 83 per cwt. It is impossible to forecast what the future price level of Chinese and English antimony is likely to be, but we feel that, in so far as the immediate period of three years is concerned, it will be reasonable to proceed on the assumption that the United Kingdom will be the main source of supply and that there will be no substantial change in the present c.i.f. price of English antimony. We, therefore, propose to adopt Rs. 83 as the c.i.f. price of imported antimony for the period of protection which we contemplate for the present for the home industry. To this a charge of Re. 1 per cwt. may be added as the port and landing charges; the landed cost, ex duty, of the imported antimony, therefore, comes to Rs. 84 per cwt.

Implication of protection.

26. It has been mentioned earlier in the report that antimony is largely used in the manufacture of certain industrial products such as bearing metals, type metals, and storage battery plates. These industries, though small by themselves, yet play an important part in the country's industrial set-up. In some of these industries, the incidence of the cost of antimony is fairly substantial, type metal being the best example. Representatives of these industries have forcibly brought to the notice of the Board the desirability of keeping the price of antimony as low as possible, lest while giving protection to antimony, the consuming industries may be adversely affected. There is every danger that, if the cost of antimony is unduly high, production of type metal in India may become so expensive as to induce foreign imports of type metal and/or finished types. In the type metal, antimony accounts for as much as 20 to 25 per cent. of its cost, indicating the

importance of the price of antimony in the price structure of type metal. Similarly in the case of the storage batter industry, the price of antimony will have a substantial effect on the price of battery. One 6 volt battery requires 28 ounces of antimony; *i.e.*, antimony represents 6 per cent. of the cost of a battery. It has been calculated that the difference in the price of a battery would be between Rs. 2 and Rs. 3 if the price of antimony were to be raised from the present possible cost of importation of Rs. 113 per cwt. to, say, Rs. 195 per cwt.—the estimated cost of production of the home metal. It is clear that antimony being a raw material must be made available to the consuming industries at a reasonable price notwithstanding its high cost of production in India. The ideal would be to fix its price so as to be in parity with the cost of importation in India, if not with the international price level. We have shown in an earlier paragraph that the c.i.f. price of antimony during the next three years may be reasonably taken at Rs. 83 per cwt., thus leaving a very wide gap between the c.i.f. price and the cost of indigenous production to be bridged.

Selling price to consumers.

27. After giving the matter most careful consideration, the Board has come to the conclusion that the selling price to the consumer during the next three years should be not higher than Rs. 150 per cwt. Making antimony available at this price should not endanger the consuming industries or expose them to the risk of import of finished product from abroad. Even then, the position will have to be constantly watched, a duty which should devolve on both customs authorities and the producers, and should any tendency be discerned favouring imports of finished products of any of these consuming industries, the position should be re-examined by Government. It is a recognised practice in all highly industrialised countries to make virgin metal available to consuming industries at even below cost of production, by resorting, if necessary, to methods of subsidisation and we think that a similar policy should be adopted in this country in regard to antimony. We have reason to think that if antimony is made available to consuming industries at about Rs. 150 per cwt., they will not be seriously affected. It may be noted that this price of Rs. 150 per cwt., is only slightly above the existing Government issue rate of Rs. 143 and only about Rs. 35 more than the price of antimony if it was allowed to be imported by private importers. It is just about double the pre-war price of English antimony which cannot be regarded as an unreasonable proportion. In the case of the type metal in which lead is an important ingredient, availability of antimony at Rs. 150 per cwt., would still leave the cost of production of type metal well below the c.i.f. price of the same, owing mainly to the removal of duty on lead recently announced in the budget of the Central Government. The Board is satisfied at the same time that it is not desirable to fix the selling price of antimony during the next triennium above Rs. 150 per cwt.

Quality of local Production.

28. Consuming interests who were examined had nothing to urge against the quality of the indigenous product. Railways which are important consumers of antimony have testified to the quality of Indian antimony. The type metal industry is satisfied especially in view of the lead content of Indian antimony. Some doubt was expressed by the storage battery industry in view of traces of iron in the local antimony which is harmful to battery plates but it has been explained by the Refinery that this defect is capable of being removed. We have reason to believe that the Indian antimony is superior to Chinese antimony and dependable in so far as purity is concerned.

29. The quality of the Indian product being established, there can be no justification for Government to depend for its own requirements on import from abroad. The Government, including Railways and Ordnance Factories, should buy all its requirements from the Indian factory at the target price.

Government Patronage.

30. Owing to the development of production of antimony in India, there is at present a total embargo on import of antimony. Since the stock of antimony held by Government together with the indigenous production is sufficient to meet the home demand and import control is still in operation, we recommend that the embargo on import of antimony should continue for the remainder of 1946 after which imports may be permited subject to the protective duty recommended by us.

Stoppage of imports in 1946.

31. We have estimated for the period of the next three years what may be expected to be the landed cost ex duty of imported antimony and what should be the fair selling price that is, the price to be allowed to the home manufacturer. The former comes to Rs. 84 per cwt., and the latter comes to Rs. 195 per cwt. We have also indicated how consuming industries would be adversely affected if Indian antimony were, under a system of protection, to be made available to them at a price of Rs. 195 per cwt., while the comparative world price would be less than half. We have recommended that the price to the consumer during the next three years should be not more than Rs. 150 per cwt. That gives an idea as to what the measure of protection should be. Deducting the landed cost ex duty of Rs. 84 from the target price of Rs. 150 per cwt., for the consumer, we get a figure which should be made up by the imposition of a protective duty. That figure comes to Rs. 66 per cwt. Ordinarily, in accordance with the practice followed by the previous Tariff Boards as also by the present Board, the protective duty should be Rs. 66 per cwt. In the present case, however, we are recommending a duty of only Rs. 60 per cwt., in view of certain important considerations which are detailed below. Firstly, it is usual for an importer to add a profit margin, which happens to be roughly 5 per cent. in antimony, to the landed cost before working out his selling price. The total landed cost in accordance with our recommendation would be roughly Rs. 144 per cwt.; made up of Rs. 83 c.i.f. price, Re. 1 landing charges and Rs. 60 customs duty. Adding a profit margin of 5 per cent on the landed cost we would get the importer's selling price at Rs. 151 as against our target selling price of Rs. 150 for the indigenous production, thus giving a narrow marginal advantage to the home manufacturer. If the full duty of Rs. 66 per cwt., were levied, the importer's selling price would have been Rs. 157 per cwt., which would have left a bigger cushion on which the home producer might have operated so as to inflate his price beyond Rs. 150 per cwt. Secondly, antimony is mainly used in alloys and other industries in some of which the incidence of the cost of antimony is quite considerable. We cannot, therefore, contemplate a position in which the price of antimony to the consumer may incline to exceed Rs. 150 per cwt. Thirdly, the case of the antimony industry is one in which, owing to the very high cost of manufacture of the local product, it is necessary to afford protection by means of both a protective duty on imports and a substantial subsidy on local production. Lastly, we feel that, while protection must leave the local manufacturer in a position of marginal advantage, as compared with the importer, the margin of advantage should not be so wide as

Measure of protection : Protective duty.

to encourage inefficiency or even indifference in regard to improvements, cost of production, and progressive management. It is for these reasons that we consider that a specific duty of Rs. 60 per cwt., should afford reasonable protection against importation of the foreign product. The specific duty on antimony crude which contains 70 per cent. antimony should be Rs. 52 per cwt. Apart from being a better means of protection, we prefer a specific duty to an *ad valorem* duty as there is no wide variation in the quality of antimony, star metal being over 99 per cent. pure. In recommending this specific duty of Rs. 60 for star antimony and Rs. 42 for crude antimony, we have assumed that the c.i.f. price would be Rs. 83 per cwt., If, however, the c.i.f. price of imported antimony falls below Rs. 80 per cwt., or goes above Rs. 90, we recommend that Government should take executive action to enhance or lower the protective duty, as the case may be, in accordance with section 4 (*1*) of the Indian Tariff Act, 1934, so as to maintain the protection intended for the home manufacturer and to ensure a reasonable price to the consumer.

Local production to be subsidised.

32. We have recommended that the price to the consumer should not be above Rs. 150 per cwt., although the cost of production plus profit permissible to the local production would come to Rs. 195 per cwt. The local producer cannot, of course, be expected to suffer a loss and sell his product at below cost of production. This would result in the closing down of the factory and the extinction of the industry. It is also impossible to contemplate a price of Rs. 195 per cwt., in view of the interests of the other consuming industries. The only alternative available is for Government to make up the balance between Rs. 195 and Rs. 150 by way of a subsidy until such time as the industry is able to face competition assisted only by a moderate amount of protective or revenue duty. We have pointed out previously that this position should be arrived at some time in 1948 or 1949 and therefore the State would be justified in giving a subsidy to enable the industry to tide over the transitional period. The amount of subsidy that would be payable would be reduced, though very slightly, by reason of the fact that Government holds a stock of antimony imported at comparatively low cost and being sold at present at Rs. 143 per cwt. The stock, we are advised, is 50 tons. Our recommendation is that the Government stock should be made over to the Star Metal Refinery at the present issue rate of Rs. 143 per cwt., and the Refinery should be asked to sell the entire stock, both imported and indigenous, at one pool price, viz., Rs. 150 per cwt. By adopting this procedure, no loss will be involved to Government in so far as the existing stock is concerned, the consumers will be enabled to get their essential raw material at a price which would not seriously handicap them in the cost of manufacture of their products and the amount of subsidy which the indigenous antimony industry may expect to receive from Government on the basis of our calculations will be somewhat reduced. The quality of the local production and of the imported metal is the same and therefore there will be no practical difficulty in the adoption of the course recommended by us.

33. Proceeding on the assumption that effect will be given to the above recommendations by the beginning of the second half of this year, that is, 1946, we work out the amount of subsidy as under :—

Amount of subsidy.

I.

Year.	Production in tons.	Production in cwts.	Price to be allowed to producer.	Total cost to producer.
1946	100	2,000	195	3,90,000
1947	200	4,000	195	7,80,000
1948	200	4,000	195	7,80,000
1946-47-48	500	10,000	195	19,50,000

II. Realizations by sale—500 tons or 10,000 cwts., at Rs. 150 per cwt., total Rs. 15,00,000.

III. Loss on total output of 500 tons at Rs. 45 per cwt., Rs. 4,50,000.

IV. Government stock of 50 tons or 1,000 cwts. being sold by Refinery at profit of Rs. 7 (Rs. 150 selling price *less* Rs. 143 cost price)—Rs. 7,000.

V. Net loss to producer Rs. 4,50,000 *minus* Rs. 7,000—Rs. 4,43,000 to be made up by subsidy on 500 tons or 10,000 cwts.

VI. Subsidy per cwt. comes to Rs. 44·3 which the Board propose to reduce to Rs. 40 per cwt., so as to make it into a round figure. The firm will thus be deprived of Rs. 43,000 till the end of 1948 which we consider to be a salutary proposal as it should spur the firm to improve its process and to secure reduction in cost of production during the period.

34. The subsidy should be paid at the end of each year on the basis of sales made during the year. The subsidy for the years 1946 and 1947 should be guaranteed at the rate of Rs. 40 per cwt. but a stipulation should be laid down that the subsidy for the year 1948 will be determined in the light of the conclusions reached on a review of the position which would be undertaken towards the end of 1947. If production goes up, the subsidy will have to be reduced. If the cost of production is reduced, the subsidy will be liable to be reduced. If the industry has not taken all possible steps to expedite the installation of a flotation plant at Chitral, the subsidy will be liable to be reduced at the discretion of Government. The industry should not be permitted to delay improvements under the shelter of protection and subsidy.

Review of position in 1947.

Government vigilance during period of protection.

35. In view of our recommendation for grant of protection or assistance to the antimony industry by means of a heavy tariff on imports and a substantial subsidy for home production, we consider it desirable that during the period of protection or assistance some machinery should be devised which would enable Government to keep a constant watch on the activities of the concern engaged in the production of antimony. If the firm of Star Metal Refinery were a public limited company, we would have recommended that payment of the subsidy should be made contingent upon the appointment by Government of a Director on the Board of Directors having the same rights and privileges as the other Directors of the company. The Star Metal Refinery, however, is at present a partnership concern and there is thus no scope for the appointment of a Government Director. As an alternative, therefore, we recommend that Government should appoint a senior officer as Inspector who will have the same access to the factory and to the papers, documents and records of both the Mining Company and the Refinery as the partners, who will be in a position to report to Government from time to time as to what efforts the firm is making to go ahead with plans of improvement and to attain reduction in the cost of production and who will ensure that the burden which the community is called upon to bear in respect of this industry is justified. The Inspector should pay a visit to the works and meet the partners at least once a quarter and should also visit the mines. All his reports should be preserved so as to be available to the Tariff Board when the case of the industry comes again for review in 1947.

Financial implications of our proposals.

36. Assuming that the sales up to the end of 1948 period will amount to 500 tons, the subsidy payable by Government will come to Rs. 4,00,000. On the credit side, when the imports are thrown open, some revenue may be realised through the protective duty of Rs. 60 per cwt., on imports. For instance, if 330 tons were to be imported till the end of 1948, the revenue duty realised will be almost equal to the amount spent by Government over subsidy. The eventuality of import of 330 tons is, however, not likely to materialise. In the first place, we have said that no import licences should be granted for the second half of 1946. In pre-war days, the United Kingdom did not export more than 50 tons of antimony to India per annum. It is impossible to say what the imports from China would be. If a small quantity is imported from China, it is possible that it would come at a lower c.i.f. price than Rs. 83 per cwt., which would enable Government to raise the protective duty from Rs. 60 to a higher figure thus enabling Government to realise a larger revenue by way of customs duty on imports from China. On the whole, however, we are of opinion that the debit side will exceed the credit side and that the subsidy will outweigh revenue from customs. This will have to be treated as a contribution by the State towards the developement of an important industry which will make the country self-sufficient in respect of a raw material required, *inter alia*, for munition production.

Eligibility for protection.

37. The criteria laid down by Government for eligibility for protection or assistance have been referred to in paragraph 2 of the report. The first condition to be fulfilled is that the industry is established and conducted on sound business lines. The Board has no difficulty in saying that this condition is fulfilled. Although the Refinery was constructed in wartime with all the usual difficulties of securing material and importing machinery, it struck the Board as well-designed and

efficient. Proper attention is being paid to experimentation, research and pilot plant work. It was not possible for the Board to pay a visit to the mine. The management has shown enterprise in setting up a new and difficult industry in the country and has not hesitated to incur expenditure over alternative methods of production with a view to saving in costs, e.g., the blast furnace. The management has gone ahead with the order for a flotation plant although the future of the industry could not have appeared too bright at the time.

38. The second condition to be fulfilled is that, having regard to the natural or economic advantages enjoyed by the industry and its actual or probable costs, it is likely within a reasonable time to develop sufficiently to be able to carry on successfully without protection or State assistance. The industry enjoys natural advantages in the sense that the raw materials required are available in the country though they have to be procured from inaccessible tracts and at very high cost. As against this, it is possible that the development of an industry in an inaccessible tribal tract like Chitral will afford certain other advantages which it would not be desirable for the State to overlook. In any case, there is reason to believe that with the mechanisation of the mine and concentration of the ore at the minehead, the cost would be brought down to a reasonable figure at which it would be possible for the industry to compete with a minimum of protection against foreign imports. We would, therefore, say that this condition is also fulfilled.

There is an additional reason why this particular industry should be protected. Antimony is a metal used in munition production and, therefore, it can be said that the establishment of the industry in India is in the national interest. This fact is proved by the experience gained during the last four years.

Recommendations. 39. Our recommendations may be summarised as under :—

(1) Embargo on import of antimony from abroad should continue for the remainder of 1946 (paragraph 30 of report).

(2) Government stock of 50 tons should be made over to the Refinery at the Government issue rate of Rs. 143 per cwt. (paragraph 32).

(3) The Refinery should give an undertaking that from the 1st June 1946 all antimony will be sold at a common pool price of Rs. 150 per cwt., whether it be local production or part of Government stock transferred to the Refinery (paragraph 32).

(4) A protective duty of Rs. 60 per cwt., should be levied for a period of two years with effect from the 1st January 1947 on all imports of star antimony (paragraph 31).

(5) The specific duty of Rs. 60 per cwt., should be modified under section 4 (*1*) of the Indian Tariff Act of 1934 in the light of any variation in the c.i.f. price of star antimony imported from anywhere above Rs. 90 or below Rs. 80 per cwt. (paragraph 31).

(6) A subsidy of Rs. 40 per cwt., should be paid to the Refinery in respect of actual sales in 1946 (past six months), 1947 and 1948, subject to a maximum of 100, 200 and 200 tons respectively. The maximum subsidy payable would thus be Rs. 80,000 in 1946, Rs. 160,000 in 1947 and Rs. 160,000 in 1948. The rate of subsidy for the years 1946 and 1947 should be guaranteed, but that for the year 1948 should be subject to a review of the position which should be

undertaken towards the end of 1947. The review should particularly refer to installation of a flotation plant at the minehead and consequential reduction in the cost of ore and ultimately in the cost of antimony (paragraphs 33 and 34).

(7) The Central Government in the Department of Industries and Supplies should give every assistance to the Mining Company to secure a generating plant for working the flotation plant at the minehead (paragraph 18).

(8) The Central Government in the Department of Labour should examine the feasibility of constructing a road 40 miles in length over the Dir Pass between Peshawar and Chitral, construction being justified if the road will also serve other purposes than reducing the cost of antimony ore mined at Chitral (paragraph 18).

(9) The review to be undertaken in 1947 should also examine whether the Company should then be asked to constitute itself into a public limited concern if its stability is assured as a result of State protection or assistance (paragraphs 35 and 5).

(10) Even when imports are thrown open, Government requirements of antimony should be met from the indigenous production. Government requirements should include Railways as well as Ordnance Factories. This policy should not be modified on the ground that the price of imported material is lower than that of Indian production (paragraph 29).

(11) There should be a separate head in the Tariff Schedule relating to antimony and antimony crude. The specific duty on antimony crude should be 70 per cent. of the duty levied on antimony metal (paragraphs 11 and 31).

(12) A circular letter should be issued to Collectors of Customs asking them to keep a watch on imports of antimony and antimony crude from abroad with special reference to the c.i.f. prices at which such imports come into the country. A report should be made immediately to Government when the c.i.f. price falls below Rs. 83 per cwt., for antimony (paragraph 27).

(13) A Government Inspector should be appointed to maintain watch over the affairs of the firm during the period of protection (paragraph 35).

40. In conducting the oral examination, in preparing and examining the case generally and in the elucidation of technical and practical aspects of the industry, the Board was glad to receive the assistance of Mr. J. G. Berry who was until recently Director of Non-ferrous Metals in the Department of Industries and Supplies. The Board drew upon his experience as a smelter of antimony as well as upon his detailed

Acknowledgment.

knowledge of the antimony industry and its numerous ramifications. The Board wishes to take this opportunity to express its thanks to him for his helpful and valuable co-operation and advice. Thanks of the Board are also due to Dr. Madan our Deputy Secretary, for taking all steps to ensure a speedy conclusion of this enquiry.

SHANMUKHAM CHETTY—President.

C. C. DESAI—Member-Secretary.

NAZIR AHMAD—Member.

H. L. DEY—Member.

B. K. MADAN—Deputy Secretary.

Calcutta, the 12th April 1946.

APPENDICES

APPENDIX I.—Government of India, Department of Commerce, Resolution No. 218-T(55)/45, dated the 3rd November 1945.

APPENDIX II.—Sketch showing journey of the antimony ore from Chitral to Bombay.

APPENDIX III.—Chart showing sequence of manufacturing process from ore to metal at present followed by the Star Metal Refinery.

APPENDIX IV.—List of witnesses examined by the Board, the interests represented by them and the dates on which they were examined.

APPENDIX I

DEPARTMENT OF COMMERCE

RESOLUTION

TARIFFS

New Delhi, the 3rd November 1945.

No. 218-T(55)/45.—In the statement on industrial policy issued by the Government of India on the 23rd April 1945, it was announced that, pending the formulation of a tariff policy appropriate to the post-war needs and conditions of the country and the establishment of permanent machinery for the purpose, Government would set up machinery for investigating claims from industries, which have been started or developed in war-time and which are established on sound lines, to assistance or protection during the transition period. A press communique issued on the same date invited industries to address their claims to the Secretary to the Government of India in the Department of Commerce.

2. Several industries have accordingly applied for assistance or protection, and on a preliminary examination of their claims, the Government of India have come to the conclusion that applications submited by the following industries call for a detailed examination :—

(*i*) non-ferrous metals, including antimony ;

(*ii*) grinding wheels ;

(*iii*) caustic soda and bleaching powder ;

(*iv*) sodium thiosulphate, sodium sulphite anhydrous, sodium bisulphite ;

(*v*) phosphates and phospheric acid ;

(*vi*) butter colour, ærated water powder colour ;

(*vii*) rubber manufactures ;

(*viii*) fire hose ;

(*ix*) wood screws ;

(*x*) steel hoops for baling.

Other applications are under the consideration of Government, and further action in their case will be taken in due course.

3. In addition to the industries which have applied for assistance or protection, there are certain industries the starting of which was considered essential by the Government of India under conditions created by the War. Early in 1940, Government announced that specified industries promoted with their direct encouragement during war-time might feel assured that, if they were conducted on sound business lines, they would, by such measures as Government might devise, be protected against unfair competition from outside India. In accordance

with this decision, the following industries have been given an assurance of protection against unfair competition after the war :—

(*i*) bichromates ;

(*ii*) steel pipes and tubes up to a nominal bore of 4 inches ;

(*iii*) aluminium ;

(*iv*) calcium chloride ;

(*v*) Calcium carbide ;

(*vi*) starch.

Of these industries, only those engaged in the manufacture of bichromates, calcium chloride and starch have so far applied for assistance or protection during the transition period. The Government of India consider that the applications submitted by these three industries also call for immediate investigation.

4. For the purpose of these and any subsequent investigations, the Government of India have decided to set up a Tariff Board for a period not exceeding two years, in the first instance. The Board will consist of :—

PRESIDENT :

Sir R. K. Shanmukham Chetty, K.C.I.E.

MEMBERS :

Mr. C. C. Desai, C.I.E., I.C.S.

Prof. H. L. Dey, D.Sc. (London).

The Board will include one more Member whose name will be announced shortly. Mr. Desai will act as Secretary to the Board in addition to his duties as Member.

5. The Tariff Board is requested to undertake, in such order as it thinks fit, the investigation of claims put forward by the industries specified in paragraphs 2 and 3 above. In the case of each industry the Board will, after such examination as it considers necessary report whether the industry satisfies the following conditions :—

(1) that it is established and conducted on sound business lines ; and

(2) (*a*) that, having regard to the natural or economic advantages enjoyed by the industry and its actual or probable costs, it is likely within a reasonable time to develop sufficiently to be able to carry on successfully without protection or State assistance ; or

(*b*) that it is an industry to which it is desirable in the national interest to grant protection or assistance and that the probable cost of such protection or assistance to the community is not excessive. Where a claim to protection or assistance is found to be established, i.e., if condition (1) and condition (2) (*a*) or (*b*) are satisfied, the Board will recommend—

(*i*) whether, at what rate and in respect of what articles, or class or description of articles, a protective duty should be imposed ;

(*ii*) what additional or alternative measures should be taken to protect or assist the industry ; and

(*iii*) for what period, not exceeding three years, the tariff or other measures recommended should remain in force.

In making its recommendations the Board will give due weight to the interests of the consumer in the light of the prevailing conditions and also consider how the recommendations affect industries using the articles in respect of which protection is to be granted. Since relief, to be effective, should be afforded without delay, the Board is requested to complete its enquiries with all possible expedition and to submit a report as soon as the investigation of the claim of each industry is concluded.

6. The headquarters of the Board will be at Bombay, but it will visit such other places as it thinks necessary for purposes of its enquiries. Firms and persons interested in any of these industries, or in industries dependent on the use of the products of these industries, who desire that their views should be considered, should address their representations to the Secretary to the Board.

7. Any claims hereafter received from other industries which in the opinion of the Government of India are suitable for examination by the Board will be referred to the Board in due course for examination.

8. The Government of India trust that Provincial Governments and Administrations will afford the Board all the assistance which it may require and will comply with any request for information which may be addressed to them by it.

ORDER.

ORDERED that a copy of this Resolution be communicated to all Provincial Governments, all Chief Commissioners, the several Departments of the Government of India, the Political Department, the Private and Military Secretaries to His Excellency the Viceroy the Central Board of Revenue, the Auditor-General, the High Commissioner for India in London, the Economic Adviser to the Government of India, the Director of Commercial Intelligence, Calcutta, the Indian Trade Commissioner, London, the Indian Government Trade Commissioners at New York, Buenos Aires, Torento, Alexandria, Mombasa, Tehran and Sydney, His Majesty's Trade Commissioner in India, the American Consulate-General, Calcutta, the Canadian Trade Commissioner in India, the Australian Trade Commissioner in India, the Secretary, Tariff Board, Bombay, and all the recognised Chambers of Commerce and Associations.

ORDERED that a copy be communicated to the Government of Burma.

ORDERED also that it be published in the *Gazette of India*.

N. R. PILLAI,

Secretary.

APPENDIX III

Chart showing sequence of manufacturing process from ore to metal at present followed by the Star Metal Refinery :—

ANTIMONY ORE
with antimony content of 30-40 per cent. as received from the mine.

Liquating process.

ANTIMONY CRUDE
71 per cent. Antimony.

Precipitation process.

SINGLE
90 per cent. Antimony.

Starring process.

STAR METAL 99 per cent.

APPENDIX IV

List of witnesses examined by the Board and the dates on which they were examined :—

Name.	*Date.*
Producers :-	
(1) Mr. Motichand G. Shah	19th, 20th and 21st March 1946.
(2) Mr. A. Schwarz	
(3) Mr. N. S. Gupchup	
(4) Mr. J. C. Shah	
(5) Mr. Chimanlal D. Parekh	20th and 21st March 1946.
representing Star Metal Refinery, Bombay.	
Consumers :—	
Mr. Krishnamurti, Assistant Superintendent, Loco and Carriage, Bombay, Baroda and Central India Railway.	20th March 1946.
Mr. N. M. Ghosh, Great Indian Peninsula Railway	20th March 1946.
Mr. R. D. Char and K. G. Parameshwaran, Standard Batteries. Ltd., Bombay.	20th March 1946.
Dr. F. R. Goldschmidt, Indian Standard Metal Co., Ltd., Bombay.	20th March 1946.
Mr. D. C. Modi, Gujerati Type Foundry, Bombay	20th March 1946.
Importers :—	
Mr. B. D. Binani and Mr. K. N. Panday, Messrs. Pragdas Mathurdas, Bombay-Calcutta.	20th March 1946.

APPENDIX II

MAP OF CHITRAL STATE

SHOWING THE LOCATION OF MINE & ROUTE OF THE TRANSPORT

(BY COURTESY OF PROF. N.P. GANDHI)

PTB.III(N)
74

GOVERNMENT OF INDIA

DEPARTMENT OF COMMERCE

INTERIM REPORT
OF THE
INDIAN TARIFF BOARD

ON THE
COTTON TEXTILE MACHINERY INDUSTRY

———

Cx. 2-62.

BOMBAY 1947

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PANEL OF THE BOARD WHICH HEARD THIS CASE

SIR R. K. SHANMUKHAM CHETTY, K.C.I.E.—PRESIDENT.

DR. NAZIR AHMAD, O.B.E.,—MEMBER.

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INTERIM REPORT ON COTTON TEXTILE MACHINERY INDUSTRY

Reference to the Board

1. An application for the protection of cotton textile machinery (ring frames, spindles and spinning rings) was made to the Commerce Department of the Government of India by the Textile Machinery Corporation, Ltd., Balghurriah (Calcutta), on the 4th December 1945. The case of this industry was referred to the Tariff Board for investigation by the Government of India (Department of Commerce) in their Resolution No. 218-T(55)/45, dated the 13th July 1946.

Terms of Reference

2. Under the terms of reference, which are stated in paragraph 5 of the Resolution No. 218-T(55)/45 of the Commerce Department, dated the 3rd November 1945, the Board has to report whether the industry satisfies the following conditions :—

(1) that it is established and conducted on sound business lines ; and

(2) (*a*) that, having regard to the natural or economic advantages enjoyed by the industry and its actual or probable costs, it is likely within a reasonable time to develop sufficiently to be able to carry on successfully without protection or State assistance ; or

(*b*) that it is an industry to which it is desirable in the national interest to grant protection or assistance and that the probable cost of such protection or assistance to the community is not excessive. Where a claim to protection or assistance is found to be established, *i.e.*, if condition (1) and condition (2) (*a*) or (*b*) are satisfied, the Board has to recommend (*i*) whether, at what rate and in respect of what articles, or class or description of articles, a protective duty should be imposed ; (*ii*) what additional or alternative measures should be taken to protect or assist the industry ; and (*iii*) for what period, not exceeding three years, the tariff or other measures recommended should remain in force. In making its recommendations, the Board has to give due weight to the interests of the consumer in the light of the prevailing conditions and also consider how the recommendations affect industries using the articles in respect of which protection is to be granted.

Method of Inquiry

3. On the 30th July 1946 the Board issued a press communiqué inviting all interests connected with the industry including importers and consumers who wished their views to be considered to submit their representations. The Board also issued a detailed questionnaire. Appendix I contains the list of associations and persons to whom the questionnaire was issued and from whom replies or memoranda were received. One of the Members of the Board, Dr. Nazir Ahmad, visited the factory of the Textile Machinery Corporation at Belghurriah and the Kesoram Mills in which a few spinning frames made by Texmaco were working. Our Technical Adviser and Cost Accounts Officer visited this factory and also the factory of the Acme Manufacturing Co., Ltd., Bombay. The public inquiry was held at Bombay on the 18th March 1947. Appendix II contains the list of persons who were invited for giving evidence at the public inquiry, and Appendix III contains the list of persons who actually responded to this invitation.

History of the Industry

4. The Textile Machinery Corporation, Ltd., was registered as a public limited company in 1939. Though it commenced work in April 1941, the production programme was interrupted on account of the factory being requisitioned for war purposes by Government in 1942. The factory was handed back to the company by Government in December 1945, and production of textile machinery was undertaken soon after. The company has a paid-up capital of one crore of rupees. Besides ring frames, spinning rings and spindles, the company proposes to manufacture other textile machinery including bleaching and dyeing machines. The factory is well equipped and has on its staff 14 British experts. Besides the Textile Machinery Corporation, Ltd., two other concerns for manufacturing cotton textile machinery were started during the war, *viz.*, the Acme Manufacturing Co., Ltd., Bombay, and Textools, Ltd., Coimbatore. Recently plans have been completed for starting another factory in the Western Presidency in collaboration with the Textile Machinery makers of England.

Estimated Indian Demand

5. The most authoritative estimate of the Indian demand for cotton textile machinery is the one made by the Post-war Planning Committee (Textiles). This Committee based its estimate on the present production of 4,800 million yards of cotton textiles and the estimated target production of 7,200 million yards per year. Out of the proposed increase of 2,400 million yards of cloth under the post-war plan, the Committee anticipated an increase in the production in the immediate future of 1,700 million yards. On this basis the Committee has estimated the additional requirements of cotton spinning machinery during the next five years as follows :—

	Million spindles
(*a*) Additional spindles required to attain the increase in production of 1,700 million yards	2·75
(*b*) Spindles for balancing	1·00
(*c*) Estimated replacement of machinery, requirement during the next five years	3·50
Total requirement of spinning machinery during the next five years ..	7·25

This estimate was accepted by all the witnesses who were present at our inquiry, and in fact some of them were of the opinion that the estimate should be considered as a conservative one. It will thus be seen that there is a very large home demand for cotton textile machinery in the immediate future.

Imports

6. It is not necessary for our purpose to go into the question of the volume of imports of cotton textile machinery in the past. What is of immediate concern is how far the Indian demand will be met by imports. In the pre-war years most of the imports came from the United Kingdom. The other countries from which imports came on a relatively small scale are Germany, Switzerland, Japan, China and U.S.A. The United Kingdom would be the main source of supply for the present, though some imports might be expected from U.S.A. and Switzerland.

7. It is difficult to forecast the exact volume of imports that may be expected to come into the country during the next few years. There is a large demand for textile machinery in many countries of the world but the exportable surplus of the manufacturing countries is limited. The Indian Textile Engineers Ltd., Bombay, who represent a combination of British manufacturers of textile machinery, have given us the following information relating to the anticipated imports from this group of manufacturers during the next three years :—

				Spindles
1947	.. ..	750	ring frames of 400 spindles each	.. 300,000
1948	.. ..	1,000	Do.	.. 400,000
1949	.. ..	1,250	Do.	.. 500,000
			Total anticipated imports during the next 3 years—3,000 ring frames of 400 spindles each	12,00,000

For spares and/or replacements it is expected that during the next three years there may be an import of about 425,000 spindles and 400,000 rings per annum. These are apart from the indicated import of spindles and rings included in the ring frames referred to above. In the United Kingdom there are other manufacturers of textile machinery who are outside this combination. It is likely that some ring frames and other textile machinery may be imported from these sources also. It has not, however, been possible to find out exactly how many, spindles are likely to be obtained from these manufacturers.

Domestic Production

8. The Textile Machinery Corporation has manufactured only ten ring frames during the year 1946 in addition to 73,097 rings and 25,749 spindles for replacement. All the component parts of the ring frame except lappets were manufactured by the company itself. The Textools Ltd. manufactured only 3 ring frames during 1946. This company has manufactured all the component parts except the rings and lappets which were imported. The Acme Manufacturing Co. have not yet produced any complete ring frame. Following is the programme of production which these companies have in view : The Textile Machinery Corporation expects to manufacture during 1947 complete ring frames aggregating 60,000 spindles. From 1948 onwards this company expects to manufacture complete ring frames aggregating 1,20,000 spindles per annum in addition to another 1,20,000 spindles for replacement. Textools Ltd. expect to manufacture ring frames aggregating about 14,000 spindles in 1947 and about 19,000 spindles per annum from 1948 onwards. The Acme Manufacturing Co. expect to produce ring frames aggregating to about 25,000 spindles in 1947 and 1,28,000 spindles per annum from 1948 onwards. In addition to these three companies which are already established and which have started production, the new Indian company which is being formed in association with the Textile Machinery makers of England expects to manufacture ultimately about 40,000 spindles per month. This company has already taken steps for the erection of the requisite buildings and expects to go into production in the near future.

Quality of Indigenous Production

9. Very few ring frames have so far been manufactured in India and even these have not yet been tested for a sufficiently long period under normal working conditions in a textile mill. The Textile Machinery Corporation informed us that some of their spinning frames were working at the Kesoram Cotton Mills. We deputed two technical experts to examine these frames. They have submitted to us a detailed report covering various technical aspects. They sum up their opinion as follows : " We think the results are excellent and encouraging. There is room for improvement, but we realise that labour cannot be trained to English standards within the short time that Texmaco has operated in this branch of engineering." Some of the ring frames manufactured by Textools Ltd. were examined by two technicians deputed by Sir James Doak of the Madura Mills Ltd. In a communication addressed to the Textile Commissioner, Bombay, Sir James Doak observes : " I cannot do better than enclose copies of two separate reports made by two of our technical staff from which it would appear that the ring frames are quite satisfactory. These frames have of course been running for a comparatively short time, but there is no reason to assume that they would not have a reasonable life." There is thus every reason to believe that ring frames of high quality can be produced in the country.

Raw Materials

10. The principal raw materials required for the manufacture of ring frames, spindles and rings are pig iron, black steel bars, bright drawn steel bars, tin sheets, steel tubes and certain other non-ferrous metals such as brass, aluminium and nickel, and wood. Other main consumable stores are hard coke and high speed steel. Most of the raw materials are either already available in the country or can be made available in the near future. At present steel tubes and steel bars for spindle blades and tin sheets of the proper quality are not available in the country. In view of the high efficiency that the steel industry in India has already attained, we do not think there should be any difficulty in producing all these materials in the near future. It would thus be seen that practically all the raw materials required for the industry are available in the country itself.

Customs Duty

11. Ring frames, spindles and spinning rings are not separately shown in the Tariff Schedule. They are included under item 72(1) of the first Tariff Schedule and are subject to an *ad valorem* revenue duty of ten per cent.

Landed Cost

12. According to the information given by the Indian Engineers Ltd., Bombay, the present landed cost of a ring frame of 400 spindles is Rs. 20,809 inclusive of the customs duty of ten per cent *ad valorem*. This cost is made up as follows :—

	Rs.
C. i. f. price	18,747
Landing and clearing charges	187
Customs duty at 10 per cent	1,875
Total ..	20,809

Another importing firm which represents certain manufacturers outside the U.K. combine has given the present landed cost with duty of a similar frame

as Rs. 25,200. The cost of an approximately similar frame imported from Switzerland will come to about Rs. 38,080 at present, inclusive of duty. The figures given above represent the prevailing prices for current imports. The manufacturers invariably insert in their contracts a price variation clause relating to possible wage increase in the United Kingdom, and it is not therefore possible to say exactly what will be the cost of future imports. The opinion of the importers is that there is no likelihood of the present level of costs being reduced, but that on the contrary there is every possibility of an increase in prices. The landed cost with duty of spindles is about Rs. 6·9 per spindle and of spinning rings about Rs. 1·4 per ring.

Indian Cost of Production

13. As mentioned in paragraph 8, the Textile Machinery Corporation has produced only 10 ring frames during the year 1946 in addition to 73,097 rings and 25,749 spindles. The Textools Ltd. have manufactured only 8 ring frames. The Acme Manufacturing Co. have not yet manufactured any complete frames. Obviously it is not possible to make any reasonable estimate of costs based on such a small volume of production. The representatives of the Textile Machinery Corporation have agreed that any attempt to determine the actual cost of production for 1946 even on a rough basis would serve no useful purpose, because such costs would admittedly be extremely high on account of the low production, and would not therefore be of a representative character. Textools Ltd. have however given more definite information regarding their cost of production. This company is concentrating on the manufacture of ring frames, and according to its accounts the actual cost of a ring frame inclusive of profit and selling expenses is Rs. 16,938. According to the estimate of future costs made by this company, it is expected that the cost of a ring frame in 1947-48 will be about Rs. 15,569 and in 1948-49 about Rs. 15,511.

Claim of the Industry for Assistance Examined.

14. The Tariff Board always bases its recommendations for protection on a comparison of domestic cost with the price of the import. The domestic cost taken for this purpose should not be a mere estimate, but has to be based on the actual production of a reasonable output. This essential criterion regarding domestic costs is not available at present, because the volume of production is still almost negligible. In the absence of these data, the Board is unable to come to any conclusion as to whether or not a case has been made out for protection. The request of the Textile Machinery Corporation really comes to this. When the company reaches its peak production it expects to market its products in competition with the imports. During the first two years when its production is on a low level, it would be incurring some loss and it requests that at least a portion of this loss should be covered by the grant of a subsidy. In other words, the company asks for a State subsidy to cover the inevitable losses arising in the early stages of building up the industry. The Tariff Board cannot entertain such a request which in effect is a claim for subsidy for developmental purposes rather than for meeting foreign competition. In so far as the company is unable to furnish precise data of cost of production on a commercial scale, the application for protection or assistance is premature.

15. The vital importance of the textile machinery manufacturing industry for the economic set-up of the country cannot be denied. The textile industry is the largest industry in the country catering for one of the essential needs. It is essential that machinery for this industry should be manufactured in the country itself. There is a vast home market for the machinery and practically all the raw materials are available in the country. The industry therefore enjoys natural advantages and is an important one from the point of view of national interest. If it can be proved on the basis of definite data regarding costs that the Indian manufacturer cannot compete with the foreign manufacturer in the domestic market, there would be a strong case for assisting the industry in some suitable manner. At the present stage, we have come to the conclusion that the inquiry should be postponed and taken up again early in 1948. In the meantime, we expect that the manufacturers would produce a reasonable output and maintain their accounts in such a manner as to enable the cost of production to be examined more accurately. In this connection, the cost of production given by the Textools Ltd. and referred to in paragraph 13 deserves to be carefully noted. With the modest equipment that the Texools Company has, it has manufactured some ring frames at a cost of Rs. 16,938 per frame. According to the statement of the representative of the company, all the component parts of the frame except rings and lappets were made by the company. This experience indicates that the Indian manufacturer should be in a position to make ring frames at competitive prices.

Statistics

16. In the course of the Tariff Board inquiries it becomes necessary to find out the volume of imports of the products for which protection is asked. In the present inquiry for instance it is important to know the number of spinning frames imported. In the import statistics given in the Accounts relating to the Sea-borne Trade and Navigation in British India, sufficient details are not given. Cotton textile machinery is now shown in the above-mentioned document under the following categories :—

(*a*) bleaching and dyeing machinery,

(*b*) printing machinery,

(*c*) spinning machinery,

(*d*) weaving machinery,

(*e*) other sorts.

We recommend that spinning and weaving machinery should be further subdivided as follows :—

Spinning machinery—

(*a*) blow room machinery,

(*b*) cards,

(*c*) speed frames (including drawing),

(*d*) spinning frames,

(*e*) doubling frames.

Weaving machinery—

(*a*) winding machines,

(*b*) warping machines,

(*c*) looms.

We have been told that there would be no difficulty for the customs authorities of the various ports in India to keep records of individual machines under the above heads. We therefore recommend that in the Accounts relating to the Sea-borne Trade and Navigation of British India, spinning and weaving machinery should be shown under the aforesaid classifications.

Summary.

17. Our conclusions may be summarised as follow:—

(*i*) There is a very large home demand for cotton textile machinery in the immediate future. (Paragraph 5).

(*ii*) There is every reason to believe that ring frames of high quality can be produced in the country. (Paragraph 9).

(*iii*) Practically all the raw materials required for the industry are available in the country. (Paragraph 10).

(*iv*) It is not possible to make any reasonable estimate of costs based on the very small volume of production so far achieved in the country. (Paragraph 13).

(*v*) The application for protection is premature for want of the necessary data regarding the domestic cost of production. (Paragraph 14).

(*vi*) The enquiry should be postponed and taken up again early in 1948. (Paragraph 15).

(*vii*) We recommend that in the Accounts relating to the Sea-borne Trade and Navigation of British India, spinning and weaving machinery should be subdivided into the various categories referred to in paragraph 16.

Ackowledgments

18. The Board wishes to express its thanks to Mr. Dharma Vira, O.B.E. I.C.S, Textile Commissioner, Mr. Krishnaraj M. D. Thackersey, Chairman of Textile Control Board, Sir Frederick Stones and Messrs. T. Ashworth and S. S. China for the valuable assistance that they gave in this inquiry, and to Mr. P. V. Raghava Rao, Cost Accounts Officer, Mr. R. N. Kapur, Technical Adviser, Rai Sahib S. C. Aggarwal, Deputy Secretary, and Dr. Rama Varma, Assistant Secretary, for the work that they did during all the stages of the inquiry.

SHANMUKHAM CHETTY,
President.

NAZIR AHMAD,
Member.

S. C. AGGARWAL,
Deputy Secretary.

Bombay, 9 April 1947.

APPENDIX I.

(*Vide* paragraph 3).

List of firms, associations or persons to whom the questionnaire was issued.

[Those who have replied to the questionnaire or furnished memoranda are marked by an asterisk (*)].

A. *Producers.*

*1. Textile Machinery Corporation Ltd., Belghurriah, (Calcutta).
*2. Textool Company Limited, Coimbatore.
3. The Acme Manufacturing Co. Ltd., Bombay.
4. The Cooper Engineering Co. Ltd., Satara Road, M. S. M. Railway.
5. Achalpur Engineering Works Ltd., Ellichpur, C. P. & Berar.

B. *Importers.*

*1. The Elgin Mills Co. Ltd., Cawnpore.
*2. Volkart Brothers, Bombay.
*3. Indian Textile Engineers Ltd., Bombay.
*4. The Star Trading Co. Ltd., Bombay.
5. The Marketing Corporation of India, New Delhi.
6. Gannon Dunkerley & Co. Ltd., Bombay.
7. Greaves Cotton & Co. Ltd., Bombay.
8. Textile & General Supplies Ltd., Bombay.
9. The Textile Supplies Syndicate (India) Ltd., Bombay.
10. S. Nagarmall, Esq., Calcutta.
11. Modi & Modi, Madras.
12. Eastern Electrical Co. Ltd., Coimbatore.
13. W. H. Brady & Co. Ltd., Bombay.
14. Begg Sutherland & Co. Ltd., Cawnpore.

C. *Consumers.*

*1. Morarji Goculdas Spg. & Wvg. Co. Ltd., Bombay.
*2. Southern India Millowners' Association, Coimbatore
*3. The Tata Mills Ltd., Bombay.
*4. The Mohini Mills Ltd., Nadia, Bengal.
*5. The Century Spg. & Mfg. Co. Ltd., Bombay.
*6. The Punjab Textile Mills Ltd., Lahore.
*7. Bharat Jute Mills Ltd., Calcutta.
*8. The Krishna Kumar Mills Co., Ltd., Kathiawar.
*9. The Surat Cotton Spg. & Wvg. Mills Ltd., Bombay
*10. New Pralhad Mills Ltd., Bombay.
*11. Kamala Mills Ltd., Bombay.
*12. Luxmi Spg. & Wvg. Mills Ltd., Bengal.
*13. The India United Mills Ltd., Bombay.
*14. The Model Mills Nagpur, Ltd., Nagpur City
*15. The Burhanpur Tapti Mills Ltd., Bombay.
*16. The Khandesh Spg. & Wvg. Mils Co. Ltd., East Khandesh.
*17. Sirur & Co. Ltd., Bombay.
*18. Central India Spg., Wvg. & Mfg. Co., Ltd., Nagpur.
*19. Mahalaxmi Cotton Mills Ltd., Calcutta.
*20. The Rajkot Spg. & Wvg. Mills Ltd., Rajkot.

*21. The Bangalore Woollen, Cotton & Silk Co., Ltd., Bangalore City.
*22. The Maharana Mills Ltd., Porbandar, Kathiawar.
*23. Nagri Mills Co., Ltd., Ahmedabad.
*24. The Walchandnagar Industries Ltd., Walchandnagar.
25. The Cawnpore Lace Works Ltd., Bombay.
26. Shri Jagdish Mills Ltd., Baroda.
27. S. Nagarmall Esq., Calcutta.
28. Atherton West & Co., Ltd., Cawnpore.
29. Srinivas Mills Ltd., Madura.
30. The Kohinoor Mills Co., Ltd., Bombay.
31. Eastern Electrical Co., Ltd., Coimbatore.
32. Sir Dhanjishah B. Cooper, Satara.
33. Begg Sutherland & Co., Ltd., Cawnpore.

D. *Associations.*

*1. Textile Machinery & Accessories Industrial & Export Group Manchester (General Memorandum).
2. The Textile Stores & Machinery Merchants' Association, Bombay.
3. The Federation of Baroda State Mills & Industries, Baroda.
4. The Ahmedabad Millowners' Association, Ahmedabad.

APPENDIX II.

(*Vide* paragrapph 3).

List of persons who were invited to be present at the public enquiry.

A. *Producers.*

1. Textile Machinery Corporation Ltd., Belghurriah (Calcutta).
2. Textool Co. Ltd., Coimbatore.
3. The Acme Manufacturing Co., Limited, Bombay.
4. Achalpur Engineering Works, Ltd., Ellichpur, C.P. & Berar.

B. *Importers.*

1. Volkart Brothers, Graham Road, Bombay.
2. The Marketing Corporation of India, New Delhi.
3. Gannon Dunkerley & Co. Ltd., Bombay.
4. Tweedales and Smalley Ltd., Bombay.
5. Indian Textile Engineers Ltd., Bombay.
6. The Textile & General Supplies Ltd., Bombay.
7. W. H. Brady & Co., Ltd., Churchgate St., Bombay.
8. Greaves Cotton & Co., Ltd., Bombay.

C. *Consumers*:—Nil (as the products of the "TEXMACO" have not been supplied to any mills except to one of the mills owned by the managing agents of Texmaco).

D. *Associations.*

1. The Textile Stores & Machinery Merchants Association, Bombay.

E. *Officials and others.*

1. Krishnaraj M. D. Thackersey, Esq., Chairman, Textile Control Board, Bombay.
2. Dharma Vira Esq., O.B.E., I.C.S., Textile Commissioner, Bombay.
3. T. P. Barat, Esq., Joint Textile Commissioner, Bombay.
4. Mr. Fakirjee E, Barucha, 12, Club Road, Byculla.

APPENDIX III

(*Vide* paragraph 3.)

List of persons who were present at the public enquiry.

I. *Producers.*		
1. Mr. E. DaCosta, „ Viswanathan, „ P. L. Kapur.	representing	Textile Machinery Corpn., Belghuarriah, Calcutta.
2. Mr. Lalchand Hirachand, „ Bharat „ Gulabchand, „ C. S. Bhagwat.	„	The Acme Manufacturing Co., Ltd., Bombay.
3. Rao Sahib N. V. Deshpande	„	Achalpur Engineering Works Ltd., Ellichpur (C.P. & Berar).
4. Mr. Balasundaram	„	Textool Co., Ltd., Coimbatore.
II. *Importers.*	"	
1. Mr. P. P. Nadkar	„	Gannon Dunkerley & Co., Ltd. Bombay.
2. Mr. Plazard	„	Greaves Cotton & Co., Ltd. Bombay.
3. Mr. J. C. Morton	„	Tweedales & Smalley Ltd., Bombay & Indian Textile Engineers Ltd., Bombay.
4. Mr. M. D. Mehta	„	Star Trading Co., 14, French Bridge Chowpatty, Bombay.
5. Mr. H. K. Tutton	„	Ormerods (India) Ltd. Bombay.
III. *Consumers.*		
1. Mr. Nandulal Mehta	„	The India United Mills Ltd. Bombay.
2. Mr. Katrak	„	Khatau Makanji Mills, Ltd., Bombay.
3. Mr. Borker	„	Bradbury Mills Ltd., Bombay.
IV. *Associations.*		
1. Mr. H. S. Bhagwati & „ R. S. Desai	„	The Textile Stores & Machinery Merchants' Association, Bombay.
2. Mr. Sankalchand G. Shah, Vice President.	„	The All India Manufacturers Organisation, Bombay.

V. *Officials & Others.*

1. Mr. Dharma Vira, O.B.E., I.C.S., Textile Commissioner, Government of India, Bombay.
2. Mr. T. P. Barat, Joint Textile Commissioner, Government of India, Bombay.
3. Mr. Krishnaraj M. D. Thackersey, Chairman, Textile Control Board, Bombay.
4. Sir Frederick Stones.
5. Mr. T. Ashworth.
6. Mr. S. S. China.

} E. D. Sassoon & Co., Ltd., Bombay.

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GOVERNMENT OF INDIA

DEPARTMENT OF COMMERCE

REPORT

OF THE

INDIAN TARIFF BOARD

ON THE

BICHROMATES INDUSTRY

Cx. 2. 62.

1946

PERSONNEL OF THE BOARD.

SIR R. K. SHANMUKHAM CHETTY, K.C.I.E.—PRESIDENT.

MR. C. C. DESAI, C.I.E., I.C.S.—MEMBER-SECRETARY.

DR. NAZIR AHMAD, O.B.E.—MEMBER.

DR. H. L. DEY, D.SC. (Lond.)—MEMBER.

DR. B. K. MADAN, M.A., PH.D.—DEPUTY SECRETARY.

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REPORT ON THE BICHROMATES INDUSTRY

Reference to the Board.

This Tariff Board was set up by the Government of India, Department of Commerce, in their Resolution No. 218-T (55)/45, dated the 3rd November 1945 (Appendix I), for the purpose of investigating claims from industries which were started or developed in wartime, or the starting of which was considered essential by Government under conditions created by the war, to assistance or protection during the transition period, pending the establishment of a permanent machinery to give effect to their long-term tariff policy in the post-war period. The bichromates industry, the starting of which was considered essential by Government under wartime conditions, was one of the industries included in this Resolution.

Scope of inquiry.

2. The Board has to report whether the industry satisfies the following conditions:—

(1) that it is established and conducted on sound business lines; and

(2) (*a*) that, having regard to the natural or economic advantages enjoyed by the industry and its actual or probable costs, it is likely within a reasonable time to develop sufficiently to be able to carry on successfully without protection or State assistance; or

(*b*) that it is an industry to which it is desirable in the national interest to grant protection or assistance and that the probable cost of such protection or assistance to the community is not excessive.

Where a claim to protection or assistance is found to be established, *i.e.*, if condition (1) and condition (2) (*a*) or (*b*) are satisfied, the Board will recommend—

(i) whether, at what rate and in respect of what articles, or class or description of articles, a protective duty should be imposed;

(ii) what additional or alternative measures should be taken to protect or assist the industry; and

(iii) for what period, not exceeding three years, the tariff or other measures recommended should remain in force.

In making its recommendations, the Board is required to give weight to the interests of the consumers in the light of the prevailing conditions and also to consider how its recommendations would affect industries using the articles in respect of which protection may be granted.

The Board has further been requested to complete the inquiry with all possible expedition in order that relief, where found necessary, may be afforded without delay and in good time.

3. In our report on calcium chloride, we have dwelt at some length on a comparison of the terms of reference of this Board with those of the Tariff Boards set up before 1939. We do not propose to repeat the same discussion in this report, but the main points may be set out here for facility of reference. The conditions which must be fulfilled by an industry before qualifying for protection or assistance are now less rigid than previously, because a liberal protective policy is considered advisable in a country like India which has yet considerable leeway to make up in industrialisation, the rapid progress of which is one of the declared objectives of Government policy and forms the general background against which the Board is holding its inquiries. As action to be taken now will be part of a short-range policy, pending formulation of a permanent tariff policy, the broad criterion adopted is that, unless an industry started during wartime suffers from some inherent economic handicaps, incapable of being remedied, there is a *prima facie* case for helping the industry until a fuller and more detailed examination can be undertaken at a later stage under normal conditions and as part of a long-term policy of protection. This also is one of the reasons why the period for which protection or assistance may be recommended has been limited to a period not exceeding three years.

Method of inquiry.

4. On the 28th November 1945, the Board issued a press communiqué inviting associations, firms or persons including producers, importers and consumers directly interested in this industry or dependent upon this industry for their raw materials, who wished their views to be considered by the Board, to submit their representations by the end of December 1945. The representations were required to be supported by facts and figures regarding, *inter alia*,

(1) domestic demand for the commodity;

(2) volume and cost of imports;

(3) cost of production;

(4) general financial position of the producers; and

(5) the exact nature of protection or assistance applied for.

The Board also issued a detailed questionnaire for producers inviting replies by the 31st January 1946. All Provincial Governments and Administrations were addressed and requested, besides giving their views, to furnish the Board with full information regarding the works or factories engaged in the production of bichromates, their estimated annual output, availability of raw materials for the industry within the Province/Administration, sources and character of demand, possibilities of extension or stabilization of the present development and likely effect of the grant of

protection to this industry on other industries using bichromates. The views of chambers of commerce and associations were invited through a circular letter. As the bichromates industry was started during wartime under direct encouragement from the Supply Department, that Department was requested to furnish the Board with such information regarding the present state of development of the industry and its future prospects as might be available with the Department and might be of use to the Board in the investigation. Two members of the Board, *viz.*, Mr. Desai and Dr. Nazir Ahmad, paid a visit to the Premier Chromate Works in Bombay on the 17th April 1946. The Krishna Chemical Works in Calcutta was visited by Dr. Nazir Ahmad on the 13th April 1946. The bichromate plant of the Buckingham and Carnatic Company, Ltd., Madras, was visited by Mr. Desai on the 29th April 1946. Some factories were also visited by the Technical Adviser attached to the Board for the purpose of investigation into chemical industries. Oral evidence of representatives of producers, consumers and importers was taken at Bombay on the 18th, 19th and 20th April 1946, and a list of the witnesses examined is appended. (Appendix II.)

History of the industry.

5. The Indian bichromates industry is essentially a wartime creation. Before 1939, all the bichromates consumed in the country were imported, the principal source of supply being the United Kingdom, the other sources being Germany, Japan, the United States of America and China. During the war, the consumption of bichromates increased very substantially (nearly four to five times) as a result of the increased requirements of the Defence Services for khaki cloth and tanned leather. The demand had to be met somehow; and, as only limited quantities could be spared from the United Kingdom and as the United States could not supply large quantities because of the acute shipping position, it was found necessary to start the industry in the country which thus came to be established in 1940. To encourage investment in the industry, the Government of India gave an assurance of post-war protection in the following terms (*vide* press note issued by the Commerce Department on the 26th March 1940) :—

" The Government of India have had under consideration the need for assuring certain specified industries, the starting of which Government consider essential under conditions created by the war, of a measure of protection which may be necessary after the war to enable such industries to continue their existence. Such specified industries, which have been promoted with the direct encouragement of Government may feel assured that, if they are conducted on sound business lines, they will, by such measures as Government may devise, be protected against unfair competition from outside India.

In view of the fact that war conditions have shown that the indigenous production of bichromates required for the textile and

tanning industries is vital to the security of two of India's major industries, Government are prepared to give an assurance on the lines indicated above to any concern which undertakes the production of bichromates."

In consquence of this assurance, a number of factories were started in various parts of India. A list of factories which are still in production will be found in Appendix III attached to this report. It will be observed that Bombay is the principal centre of production; Cawnpore, Madras, Calcutta and Mysore being the other places where the industry is located. The cost of production in the initial stage was naturally high as compared with the cost of the imported product. The expansion in output was rapid and very soon the industry developed capacity in excess of the peacetime demand. The technique of production was also being improved, notwithstanding wartime difficulties of securing up-to-date plant and equipment. The Government of India deputed Dr. N. R. Damle (who was then Industrial Chemist to the Department of Industries of the Government of Bombay) to England to study the manufacture of bichromates in that country. Another contribution which the Central Government made to the orderly development of the bichromates industry, was the promulgation, on the 25th October 1945, of a Chrome Compounds Control Order which seeks to regulate the production, distribution and prices of the indigenous products. A copy of this Order, amended up to date, will be found in Appendix IV attached to this report. The Board understands that the Chrome Compounds Control Order has served its purpose and is likely to be withdrawn by the end of May 1946. The cessation of hostilities with the consequent danger of import of bichromates from abroad at relatively low prices led the industry to apply for assistance or protection in response to the Government press communiqué of the 23rd April 1945, which invited applications on the subject. An application for protection was made in October 1945 by the All-India Bichromate Manufacturers' Association, Bombay, of which most of the leading manufacturers are members, the case of the industry being referred to the Board in November 1945, as already stated.

Industry's case for protection.

6. The case for protection to the bichromates industry has been collectively stated by the All-India Bichromate Manufacturers' Association, in its letter, dated the 19th December 1945. The salient points of the representation may be summarised as under :—

(1) the industry was started during wartime under a specific assurance of protection which must now be given;

(2) the industry has developed productive capacity sufficient to meet the total requirements of the country;

(3) the cost of production is high because of the comparatively higher prices of raw materials, *e.g.*, soda ash, fuel and sulphuric acid, than in other countries such as the United Kingdom;

(4) the industry served a vital purpose at a crucial period indicating the importance of its place in national economy; and

(5) given assistance in the initial period, the industry bids fair not only to survive foreign competition with the minimum of protection in the long run, but also to capture export markets in adjoining countries.

Process of manufacture.

7. The raw materials required for the manufacture of sodium bichromate, which is the principal variety of bichromate used in the country, are chrome ore, soda ash, limestone, sulphuric acid and fuel in the form of either coal or fuel oil or both. India is one of the principal sources of supply of chrome ore, the other countries having chrome ore being Turkey, Rhodesia, Russia and Brazil. In India, the chief sources of supply of chrome ore are in Baluchistan, Mysore and Chaibasa in Bihar. The Baluchistan ore is said to be the best. Some of it contains more than 50 per cent. of chrome oxide (Cr_2O_3); but most of it is exported to the United Kingdom where it is used, according to information available to us, in the production of munitions rather than of bichromates. The producers of bichromates in India have to be content with ore containing less than 48 per cent. of chromo oxide. Different factories obtain their own requirements from different areas according to convenience of location, *e.g.*, the factory at Belagula in Mysore uses the Mysore ore.

8. The first process in the manufacture of bichromates is roasting of the ore which means that finely crushed chromite ore is roasted with lime and soda ash on the bed of a reverberatory furnace at about 1100° temperature, due care being taken to avoid the fusion of the mass. The chemical reaction in the furnace results in the production of sodium chromate (Na_2CrO_4) after about 4 hours. The next process is lixiviation which consists in charging the roasted mass in rectangular mild steel tanks with beds of gravel which are covered by perforated steel plates which help filteration and extraction of liquor. A liquor of concentration above 40° Bé is obtained in 10 to 12 hours and is primarily a solution of sodium chromate (Na_2CrO_4). The third process is acidification. The strong liquor obtained from the process of lixiviation is mixed with sulphuric acid; the resultant reaction causes the formation of sodium bichromate and sodium sulphate. Sodium sulphate separates out on cooling. The decanted liquor which is mainly a solution of sodium bichromate is transferred to mild steel pans fitted with mechanical stirrers for further concentration. This process has to be repeated until traces of sodium sulphate are finally removed. When the liquor reaches about 68 Bé it is drained to the crystallizing pans. Crystals appear in a couple of days; they are then centrifuged to free them from the mother liquor. The crystals are then packed in steel drums ready for despatch.

9. Potassium bichromate is produced by the double decomposition of sodium bichromate with some soluble salt of potassium

such as potassium chloride or potassium nitrate. Sodium bichromate of about 40 to 45° Bé is charged in boiling pans to which the potassium salt is added in small quantities. The liquor is then transferred to crystallizing pans. The crystals formed are removed, centrifuged and packed in drums.

10. It is understood that the process of manufacture adopted in India is more or less the standard one which is adopted in other countries also. There is another process of manufacture with the aid of the electrolytic cell but this method is not being followed by any of the factories in India.

Problem of by-product.

11. The main by-product in the manufacture of bichromates is sodium sulphate, the disposal of which has become a problem to the bichromates industry in India. For every ton of sodium bichromate, one ton of sodium sulphate becomes a by-product. It is not that there is no demand for sodium sulphate in the country. In fact, sodium sulphate is imported to meet the requirements of the paper, textile, tanning and glass industries, the pre-war imports being 1,750 tons per annum. The difficulty of our bichromates industry lies in the fact that the sodium sulphate which is left over after the production of bichromates is not as free from chrome content as the consuming industries would like it to be. It is clear, however, that so long as the industry is not able to solve the problem of disposal of sodium sulphate, it will continue to suffer from the handicap of inflated costs, making it difficult for the industry to stand competition with foreign imports. We would urge upon the All-India Bichromate Manufacturers' Association to tackle this problem as a body, if necessary, by subsidizing research on an adequate scale either in the Department of Industries of the Bombay Government or in the Department of Chemical Technology of the Bombay University.

Need for rationalization of industry.

12. Another feature to which the Board would like to invite the attention of the Association is the high cost of labour and overhead charges. In some factories, overheads account for as much as 23 per cent. of the total cost of production indicating room for economy. Location of different processes could be improved or "streamlined" with consequential saving in labour and handling charges. Mushroom growth of factories during wartime is understandable, but with the reappearance of keen competition from imports, some of the existing factories, which were established with small capital and make-shift equipment will have to go out of production and the surviving factories will have to be reorganized so as to constitute economic and efficient units of production. The Board is advised that a minimum output of 600 tons per annum of bichromates is necessary to constitute an economic unit of production, although a factory designed for an output of 1,000 tons would be a

still better proposition. On this basis, and taking into consideration the probable demand for bichromates in the country in the next three years, not more than four or five factories would be required as against the existing number of over 17.

Uses.

13. Bichromates are used in various industries for different purposes. Before the war, the largest consumer of bichromates was the leather-tanning industry, but during the war the largest demand came from the textile industry for the purpose of mineral khaki dyeing. Bichromates are an important ingredient in the production of pigments and paints which is the third largest use of the chemical. The other industries using bichromates are the match industry, wood preservation industry, munitions production, chrome plating and manufacture of several chemicals.

Imports.

14. Appendix V attached to this report gives the figures of imports of both sodium and potassium bichromates into the country since 1936–37 by volume, value and average value, total as well as countrywise. The average value per cwt. shown in the statement is the c.i.f. price Indian port. The statement shows that the United Kingdom was the main source of supply of bichromates both prior to the war and during war. The c.i.f. prices before the war ranged from Rs. 15 to Rs. 25 per cwt., the lower prices being those of imports from Japan. There was an immediate rise in the price on the commencement of the war, but thereafter the c.i.f. price remained steady at roughly Rs. 45 per cwt. during all the war years. The American price was slightly lower, probably owing to lend-lease supplies. Advices are now being received from exporters in both the United Kingdom and the United States indicating that they are in a position to export bichromates to India in large quantities. At present imports of bichromates are not being permitted because of the development of more than adequate capacity in the country.

Domestic production.

15. The first factory for the production of bichromates was set up in 1940 and since then a number of factories have been established scattered all over the country. The total rated capacity of Indian factories is 6,226 tons per annum including the capacity of 1,080 tons of the Buckingham and Carnatic Company, Limited, Madras, which produces bichromates for consumption in its own mills. The actual production has, however, fallen considerably short of the total productive capacity because of several handicaps, such as scarcity of raw materials, difficulty of getting power and absence of adequate offtake. The highest production so far attained by the industry as a whole was 3,255 tons in 1945. This figure includes 995 tons produced by the Buckingham and Carnatic Company, Madras, and used in its own mills for khaki dyeing. According to the All-India

Bichromate Manufactureres' Association, production during the last three years has been as follows :—

Year.	TONS.
1943	2,500
1944	3,000/3,500
1945	4,000

16. Some of the factories have plans for expansion which would raise the total capacity of the Indian industry. For instance, the Government Bichromate Factory at Belagula, Mysore State, has a scheme to increase production from the present capacity of 240 tons to 600 tons per annum. Similarly, the Union Chemical Industries, Calcutta, have at present a capacity for only 56 tons of bichromates, but the company has a new factory under construction which will have a daily production capacity of three tons, *i.e.*, a capacity of 1,000 tons per annum. At the same time, it is not unlikely that some of the smaller factories will go out of existence as they will not be able to compete in the matter of price with larger concerns, once keen competition begins with the arrival of imports. In any case, it is clear that the country has far more capacity than would be warranted by the extent of demand for the product.

Domestic consumption.

17. Before the war there was no local production of bichromates and therefore the statistics of imports afford reliable guidance as to the demand for bichromates in the country. On an average of the three years, 1936–37 to 1938–39, the pre-war imports were of the order of 1,200 tons per annum. The bulk of this quantity was used in the tanning industry. During wartime, the demand grew steeply as a result of rapid expansion of the requirements of both the textile and the tanning industries. At one time during the war, the country was consuming as much as 5,800 tons per annum. This was met by supplementing local production by imports from both the United Kingdom and under lend-lease from the United States. It is difficult to forecast accurately what will be the average annual consumption per annum of bichromates by the various industries but the following figures arrived at after considerable discussion with the interests concerned appear to the Board to indicate the likely trend of consumption in the next three years :—

	TONS.
(*a*) Tanning industry	1,000
(*b*) Textile industry	750
(*c*) Paint and pigment industry	500
(*d*) Other industries	150
Total ..	2,400

The All-India Bichromate Manufacturers' Association would place the Indian demand at a much higher figure, its estimate being 1,500 tons for the tanning industry; 1,500 tons for the textile industry; 500 tons for the paint industry; and 250 tons for the other industries; making a total of 3,750 tons. It may be mentioned here that the Imperial Chemical Industries (India), Limited, who have considerable experience of the bichromate trade in the country, estimate the future Indian demand at only 1,500 tons, their ground for the low figure being that the military authorities have switched over from khaki colour to olive green and that vat and sulphur dyes are likely to replace bichromates in the textile industry in which bichromates are used at present or were used during wartime.

18. Though it is a matter of speculation as to what the future demand may be, from the evidence placed before the Board, we consider that the post-war demand should be roughly twice the pre-war consumption, *i.e.*, it should be in the neighbourhood of 2,400 tons per annum. The maintenance of the demand for bichromates will depend to some extent, at any rate, upon the quality which the home industry is able to turn out as also upon the price at which the article will be made available. Scope for expansion in consumption of bichromates exists in the tanning industry and still more in the paint and pigment industry whereas the demand may be very much reduced in the textile industry. The figures of imports during the war years when the rising local reflect a marked rise in the consumption of bichromates during wartime and the recent fall in the same. At one time, the position of stocks on hand became so serious that a lend-lease consignment had to be diverted to other countries with a view to allaying the fears of the home producers.

Wartime expedient of pooling.

19. During wartime, as there were two sources of supply of bichromates, *viz.*, home production and imports, Government made an arrangement for the pooling of all the supplies and their release at a fixed pool price which was worked out on the basis of cost of importation of imports and cost of production of indigenous manufactures. At first, the pool price was Rs. 80 per cwt. naked, but it was later revised to Rs. 88 per cwt. packed, which is still the prevailing price. Under the pool arrangement, every manufacturer participating in the pool was costed and his fair selling price fixed and he was paid accordingly.

Quality of home production.

20. Considering that the industry was started during wartime and had often to rest content with make-shift arrangements and equipment, it is creditable that the quality of the home-made bichromates has generally given satisfaction to the consuming industries. The only industry which complained regarding the quality of the Indian

bichromates was the paint industry where the slightest impurity has serious deleterious effects on the quality of the paints and pigments produced. Complaint as regards quality was also made, though to a less extent, by the tanning industry. Both these industries insist on a minimum purity of 98 per cent. and a sodium sulphate content not exceeding 1 per cent. of the total. No specifications were laid down either by Government or by the tanning and paint industries and therefore it was not established that the indigenous product was incapable of conforming to the standard required by these two industries. The All-India Bichromate Manufacturers' Association stated before the Board that it would be possible for the members of the association to supply the quality desired by these industries. The Association has agreed to make arrangements for supplying standard quality of bichromates to consuming industries and particularly to the paint and tanning industries, the standard being a quality at least 98 per cent. pure with the sulphate content not above 1 per cent. and air-tight packing. Representatives of the paint industry agreed that, if these specifications were complied with, the Indian product would be quite acceptable to the paint industry. The textile industry has no complaint as regards quality since a slight admixture of sodium sulphate does not render the bichromates unsuitable for the purpose for which they are required by the mineral khaki dyers. The Bichromate Manufacturares' Association should insist on its members testing each drum before it leaves the premises of the factory and maintaining a record of such tests so that confidence in the home product may be established and such prejudice against it as still lurks in the minds of the Indian industries may be dispelled. The Association will be well advised to set up some machinery to ensure that instructions in this behalf issued by the Association to its members are strictly complied with.

Cost of production.

21. The cost of production of bichromates varies very widely from factory to factory. Factories participating in the bichromate pool to which a reference was made earlier in this report were costed from time to time to determine what price should be paid to them and what should be the pool price. The latest costing carried out for this purpose and on which the present pool price of Rs. 88 per cwt. of sodium bichromate is based, shows that the cost of production per cwt. varied from Rs. 64 in the case of the Cawnpore Chemicals to Rs. 102 in the case of the Golden Chemicals, Bombay. The cost of production figures of the other factories were as follows :—

	Per cwt. Rs.
Pioneer Chromate Works, Bombay	72
Premier Chromate and Chemical Works, Bombay ..	81
Indentors' Syndicate, Bombay	84
The Government Bichromate Works, Mysore ..	96
Miscellaneous concerns	100

The Board had the two leading factories in Bombay costed through its own Cost Accounts Officer for determining what should be the cost of production of an efficient factory working under optimum conditions. The two factories costed for this purpose were the Pioneer Chromate Works and the Premier Chromate and Chemical Works. The statement given below shows the results of these investigations :—

Statement showing comparative cost of production of 1 ton of sodium bichromate.

	Premier Chromate and Chemical Works, Limited.			Pioneer Chromate Works, Limited.					
	November 1945 to March 1946.			October to December 1945.			January to March 1946.		
	Quantity.	Rate per ton.	Amount.	Quantity.	Rate per ton.	Amount.	Quantity.	Rate per ton.	Amount.
	TONS.	RS.	RS.	TONS.	RS.	RS.	TONS.	RS.	RS.
I. Manufacturing expenses—									
1 Raw materials—									
(*a*) Chrome ore	1·91	103	196·73	2·00	115	230·00	2·08	115	239·20
(*b*) Soda ash	1·32	165	217·80	1·30	195	253·50	1·40	195	273·00
(*c*) Lime	1·38	80	110·40	0·84	86	72·24	..	..	..
(*d*) Lime stone	..	..	..	..	..	..	1·23	34·75	42·74
(*e*) Sulphuric acid	0·64	280	179·20	0·65	280	182·00	0·78	280	218·40
Total, raw materials ..	..	..	704·13	..	..	737·74	..	..	773·34
2 Power and fuel	..	..	184·00	..	..	185·00	..	..	175·20
3 Ordinary current repairs, maintenance of buildings, plant and machinery.	..	..	92·20	..	..	30·80	..	..	30·80
4 Labour (including bonus)	..	..	292·00	..	..	178·20	..	..	188·50
5 General services, supervision and local office charges.	..	..	68·00	..	..	86·70	..	..	88·70
6 Expenditure on quality control, research and development.	..	..	3·00	..	..	13·50	..	..	13·50
7 Packing charges	..	..	34·00	..	..	60·00	..	..	60·00
8 Miscellaneous, water, lighting, sundry stores, royalties, etc.	..	..	78·50	..	..	78·80	..	..	79·10
Total ..	..	..	1,455·80	..	..	1,370·74	..	..	1,409·14

Statement showing comparative cost of production of 1 ton of sodium bichromate—cont.

	Premier Chromate and Chemical Works, Limited.			Pioneer Chromate Works, Limited.					
	November 1945 to March 1946.			October to December 1945.			January to March 1946.		
	Quantity.	Rate per ton.	Amount.	Quantity.	Rate per ton.	Amount.	Quantity.	Rate per ton.	Amount.
			Rs.			Rs.			Rs.
II. Overhead charges—									
9 Depreciation	..	..	27·00	..	..	93·80	..	..	93·80
10 Interest on working capital	..	..	15·00	..	..	14·00	..	..	14·00
11 Managing agents' charges	..	..	..	..	..	..	..	..	..
12 Directors and auditors' fees	..	..	11·00	..	..	13·00	..	..	13·00
13 Insurance	..	..	3·00	..	..	26·20	..	..	34·00
14 Rents, rates and taxes excluding income-tax and royalties.	..	..	7·00						
15 Selling expenses	..	..	8·00	..	..	..	..	..	..
16 Miscellaneous	..	..	3·00	..	..	..	..	..	..
Total	..	..	74·00	..	..	147·00	..	..	154·80
Gross total (I and II)	..	..	1,529·80	..	..	1,517·74	..	..	1,563·94
Credit for materials recovered	..	..	..	..	..	..	..	..	..
Net total	..	..	1,529·80 per ton.	..	..	1,517·74 per ton.	..	..	1,563·94 per ton.
i.e.	..	..	76·49 per cwt.	..	..	75·89 per cwt.	..	..	78·10 per cwt.
Total quantity produced	..		251 tons.			116 tons.			116 tons.

The cost of production works out at Rs. 76 to Rs. 78 per cwt. without provision for profit.

Quantity of raw materials.

22. To arrive at a reasonable cost of production of sodium bichromate, applicable to the industry as a whole, the Board had first to fix what should be the minimum output of a factory to form an economic unit. An output of 600 tons per annum has been taken as the minimum production of an economic unit. The details of costs were then scrutinised. In the raw materials there is considerable scope for economy. For 1 ton of sodium bichromate, the raw materials required should be not more than as follows :—

	TONS.
Chrome ore	1·70
Soda ash	1·00
Lime stone	1·25
Sulphuric acid	0·60

as against 2·08, 1·40, 1·23 and 0·78 tons respectively, actually used by the Pioneer Chromate Works. According to Dr. Damle who made a minute study of the manufacture of bichromates in the United Kingdom, the raw materials required ideally should be 1·20 tons of chrome ore, 1·00 ton of soda ash, 0·60 ton of sulphuric acid and 0·66 ton of lime stone. We are advised that it would be more economical for a bichromate factory to use lime stone instead of lime and that 1·25 tons of lime stone per ton of sodium bichromate should be adequate. We recognize that the full economy in quantities suggested by Dr. Damle is not capable of attainment in the smaller factories generally existing in this country and therefore have made liberal provision in our calculations for the quantity of raw materials required under the conditions of the industry in this country. We have taken 1·70 tons of chrome ore as against 1·20 tons suggested by Dr. Damle. Similarly, we have taken 1·25 tons of lime stone instead of 0·66 ton of lime suggested by Dr. Damle. We have not varied the figures of soda ash and sulphuric acid in view of the fact that these quantities have very nearly been attained in actual production in the two Bombay factories. This is particularly so in the case of sulphuric acid. The Bichromate Manufacturers' Association insisted that in so far as soda ash was concerned 1·00 ton assumed by the Board erred on the low side and that a higher figure would be more appropriate. We have not accepted this contention of the Association in arriving at the representative cost, but have taken the views of the Association into consideration in fixing the fair selling price and working out the measure of protection required.

Prices of raw materials.

23. (*a*) *Sulphuric acid.*—In the matter of prices we have not made any substantial change from those actually prevailing, except in the case of sulphuric acid where we have assumed Rs. 160 per ton as against Rs. 280 per ton which is being paid by the two

Bombay factories for their requirements of sulphuric acid. The reason why we have adopted the figure of Rs. 160 per ton for sulphuric acid is that we are advised that sulphur should now be available in the country at the rate of Rs. 150 per ton on which basis the price of sulphuric acid should not exceed Rs. 100 at the outside. Normally the price of sulphuric acid should be not more than one-third of the price of sulphur *plus* Rs. 30 for conversion. On this basis, the price of sulphuric acid should be Rs. 80 per ton when the price of sulphur is Rs. 150 per ton. The cost of production of sulphuric acid has not been directly investigated by the Board and it is therefore not possible to arrive at a definite price for it. It is possible that the present conversion costs are greater in this country than are assumed in the formula mentioned above. Allowance has also to be made for the extra cost involved in packing and freight. Taking all these factors into consideration and in view of the fact that the price of sulphuric acid at present is as high as Rs. 280 per ton, we have taken for the purpose of the bichromates industry, a price of Rs. 160 per ton for the supply of sulphuric acid. The Board feels strongly that sulphuric acid, which enters into the production of so many chemicals, drugs and pharmaceuticals, should be controlled so as to make the acid available to the manufacturing industries at a reasonable price. If the bichromates industry gets its requirements of sulphuric acid at a price other than Rs. 160 assumed by us, our calculation of cost of production and of the protective duty necessary will have to be correspondingly revised. The Board hopes, therefore, that it will be possible for Government to control the price of sulphuric acid so as not to exceed Rs. 160 in any case. Another point which we wish to urge at this stage is that a bichromate manufacturer should have his own production of sulphuric acid to attain really economical production. All the acid produced may not be absorbed in bichromate production and side lines may have to be developed for the purpose. We would advise the setting up of a three-tons-per-day plant as an adjunct to a bichromate factory with an output of not less than 600 tons per annum. This step may take a couple of years to achieve and so we have not based our calculation of cost of sulphuric acid on the possibility of its supply from the same factory.

(*b*) *Other raw materials.*—We have taken the price of chrome ore at Rs. 110 per ton as against the actual of Rs. 103 of the Premier Chromate and Chemical Works and Rs. 115 of the Pioneer Chromate Works. We have taken the price of soda ash at Rs. 200 per ton as we were assured that this was the prevailing price and that there was no possibility of a fall in it during the next three years. The price of lime stone has been taken at Rs. 36 per ton as against the actual of Rs. 34·75 of the Pioneer Chromate Works. The only other item in which a substantial change is made is power and fuel. The expenditure on this item in both the Pioneer and Premier Chromate Works is based on the consumption of 2·9 tons

of fuel oil which is regarded as extravagant and excessive. Instead, we have assumed a figure of 2·5 tons. This puts the cost of power and fuel at Rs. 140 per ton of sodium bichromate as against Rs. 184 and Rs. 175 of the Pioneer in the last quarter of 1945 and in the quarter ending March 1946, respectively. We have allowed interest on working capital at the rate of 4 per cent. on the total working capital required for an efficient factory with a minimum output of 600 tons per annum. Judging from the experience of the Pioneer Chromate Works, the working capital required for such a factory should be about Rs. 3 lakhs. In the column for credit for raw materials recovered, both the Pioneer and the Premier Chromate Works show nil, but in our estimate we have taken Rs. 40 per ton as credit for sodium sulphate at the rate of Rs. 2 per cwt. This is the minimum that should be expected and in fact, with proper development, the credit on account of this by-product should be considerably higher.

Board's estimate of cost of production in the period 1946–49.

24. Taking the above calculations into consideration, we estimate the cost of production of one ton of sodium bichromate during the three years ending March 1949 on the assumption of an annual output of 600 tons as follows :—

Board's estimate of cost of production of sodium bichromate for 1946-1949 *on an output of* 600 *tons per annum.*

Particulars.	Quantity.	Rate per ton.	Amount per ton
	TONS.	RS.	RS.
I. Manufacturing expenses—			
1 (*a*) Chrome ore	1·7	110	187·0
(*b*) Soda ash	1·0	200	200·0
(*c*) Lime stone	1·25	36	45·0
(*d*) Sulphuric acid	0·6	160	96·0
Total—Raw materials ..			538·0
2 Power and fuel	2·5 (furnace oil).	51,127·5 Power 12·0	139·5
3 Ordinary current repairs and maintenance of buildings and machinery.	..	..	20·0
4 Labour (including bonus)	..	..	140·0
5 General services, supervision and local office charges.	..	..	67·0
6 Expenditure on quality control, research and development.	..	..	10·0
7 Packing charges	..	..	60·0
8 Miscellaneous, water, lighting, sundry stores, royalties, etc.	..	..	60·0
		Total ..	1,024·5

Board's estimate of cost of production of sodium bichromate for 1946-1949 on an output of 600 tons per annum—cont.

Particulars.	Quantity.	Rate per ton.	Amount per ton.
			RS.
II. Overhead charges—			
9 Depreciation	..	..	72·5
10 Interest (at 4 per cent. on working capital of Rs. 3 lakhs).	..	..	20·0
11 Managing agents' charges	..	..	Nil.
12 Directors' and auditor's fees ..	..	..	10·0
13 Insurance .. .. .. } 14 Rents, rates and taxes excluding income-tax and royalties. }			2·03
15 Selling expenses	..	..	8·0
		Total ..	130·8
		Gross total (I and II) ..	1,155·3
		Credit for materials recovered ..	40·0
		Net cost ..	1,115·3
		Or Rs. 55·76 per cwt.	

Board's estimate to apply to industry as a whole.

25. It was represented by some factories that the cost of production estimated by the Board may not be applicable to all factories, particularly in regard to the quantities and prices of the raw materials used. It is possible that a factory like Belagula in Mysore may have to spend more on soda-ash and fuel-oil, while it is compensated by lower cost on account of the chrome ore which is available in the vicinity; the Balagula factory is also more favourably situated than other factories in regard to the supply of sulphuric acid which is produced in the same place though by a separate concern. The Bombay factories are more favourably situated in regard to fuel oil and sulphuric acid but may have to spend a little more on chrome ore which may be coming either from Baluchistan or from Bihar. The Board is satisfied that, after making allowances for these advantages and disadvantages, the overall cost should be applicable to all the factories, *i.e.*, to the industry as a whole, and that the industry would find no difficulty in conforming to the Board's estimate if a real effort is made towards achieving as low a cost of production as is possible.

Fair selling price.

26. In order to arrive at the fair selling price, we have to add manufacturer's profit to the cost of production. The total amount of fixed capital required for a factory with an output of 600 tons per annum should be, judging from the balance-sheet of the Pioneer Chromate Works. Rs. 3·4 lakhs. Although the previous Tariff Boards allowed 8 per cent. on the fixed capital, we have adopted a practice of allowing 10 per cent. in view of the altered circumstances prevailing to-day. At this rate, profit should be Rs. 34,000, *i.e.*, roughly Rs. 57 per

ton of sodium bichromate. Adding the profit of Rs. 57 to Rs. 1,115·3 (the cost of production), we arrive at the fair selling price of Rs. 1,172·3 per ton or Rs. 58·6 per cwt. of sodium bichromate. This is the minimum price which should be assured to the Indian producer if the industry is to be safeguarded.

Cost of imports.

27. The United Kingdom was the main source of supply of bichromates before the war and during the wartime. The following table gives the c.i.f. price and landed cost of bichromate of soda imported from the United Kingdom :—

Description.	1936.	1937.	1938.	1939.	1940.	1941.	1943.
1 c.i.f. price per ton, Indian port—							
(1) In English currency	£34 14 0	34 14 0	37 0 0	38 3 0	79 5 0	58 11 0	76 11 1½
(2) In Indian currency (1 *s.* 6 *d.* per rupee).	Rs. 462·67	462·67	493·33	503·67	1,056·67	780·67	1,020·95
2 Duty at the rate of 30 per cent. on c.i.f. value per ton.	„ 138·80	138·80	148·00	152·60	317·00	234·20	306·23
3 Port Trust and clearance charges (at the rate of 8 annas per cwt.) per ton.	„ 10·00	10·00	10·00	10·00	10·00	10·00	10·00
4 Total landed cost per ton ..	„ 611·47	611·47	651·33	671·27	1,383·67	1,024·87	1,337·18
5 Total landed cost per cwt. ..	„ 30·57	30·57	32·57	33·56	69·18	51·24	66·86
6 Retail selling price per cwt. (10 per cent. over landed cost).	„ 33·67	33·67	35·83	36·92	76·10	56·36	73·55

The latest quotation received by a leading importing firm is 8½d. per lb. c.i.f. Indian port, which works out at Rs. 52–14–0 per cwt. Adding As. 8 as clearing charges, we arrive at Rs. 53–6–0 per cwt., as landed cost ex-duty. The landed cost on a basis of 30 per cent. *ad valorem* duty would be Rs. 69–3–0 per cwt. Another importer of bichromates received a quotation, dated the 3rd April 1946, from an American supplier, which gives the landed cost ex-duty at Rs. 71–9–6 per cwt. This figure is based on a price of $427·65 per ton c.i.f. Bombay. If 30 per cent. duty is added, the total landed cost comes to Rs. 92–15–0 per cwt. The importer admitted, however, that this was a very inflated price, and that one of the largest manufacturers of bichromates in the United States is expected to be in a position to supply sodium bichromate at the rate of 8 cents per pound f.a.s., the price of potassium-bichromate being 10 cents f.a.s. At this price, the c.i.f. price Bombay would be Rs. 1,025 per ton or Rs. 51–4–0 per cwt. The landed cost ex-duty would be Rs. 51–12–0 while the landed cost inclusive of duty at 30 per cent. *ad valorem* would be Rs. 67–2–0 per cwt. This is the minimum landed cost at which American sodium bichromate might be had in India. It must be mentioned however that this price has not so far been quoted by any American supplier. For the present, therefore, we must be guided by actual rather than possible quotations. The importer usually charges a profit margin of 10 per cent. on the landed cost in fixing the selling price. A comparison of the actual American and British c.i.f. prices shows that the British prices are lower than the American prices. We have accordingly adopted Rs. 53–6–0 per cwt. as the

landed cost ex-duty at which the imports may arrive in the country during the next three years.

Measure of protection.

28. *Protective duty.*—We have worked out that the fair selling price of sodium-bichromate under efficient and economic working in a factory with an output of 600 tons per annum should be Rs. 58·6 per cwt., and with a small margin in favour of the home manufacturer we put the figure at Rs. 60 per cwt. This price is based on the assumption that sulphuric acid will be made available to the industry at Rs. 160 per ton. We have also shown that the c.i.f. price of the cheapest of the foreign imports may be taken at Rs. 52–14–0 per cwt., which together with 8 annas landing charges per cwt., would place the landed cost ex-duty at Rs. 53–6–0 per cwt. The difference between the fair selling price and the landed cost ex-duty is thus Rs. 6–10–0 per cwt. (Rs. 60 minus Rs. 53–6–0 or Rs. 6–10–0). This difference can be made up by a duty of 11 per cent. of the c.i.f. price as against which there is at present a duty of 30 per cent. The industry is thus adequately protected by the existing duty. All that is required is to convert the present revenue duty into a protective duty and to provide for the variation of the duty whenever there is a fall in the c.i.f. price of foreign imports from the level assumed by the Board for the purpose of this investigation, so as to afford the necessary assurance of security to the indigenous producers. If the duty is 30 per cent. as suggested, the landed cost of imports from the United Kingdom would be as follows :—

	Rs.	A.	P.
c.i.f. price per cwt.	52	14	0
Duty at 30 per cent.	15	13	0
Landing charges	0	8	0
Total landed cost ..	69	3	0
Selling price ..	75	0	0

There would thus be a margin of nearly Rs. 15 per cwt. in favour of the home producer. This margin should provide a sufficient cushion for the adjustment of cost of production in the event of prices of some of the raw materials rising or some of the factories finding it difficult to conform to the Board's estimate of what the cost of production should be.

29. *Minimum c.i.f. price for variation of duty.*—We may now work back from the fair selling price of Rs. 60 per cwt. to what will be the c.i.f. price at which competition from abroad may become real. The c.i.f. price corresponding to the landed cost of Rs. 60 is approximately Rs. 46. Only when it falls below Rs. 46 per cwt., will the home industry be threatened with a degree of

competition from abroad which will necessitate the invocation of section 4 of the Tariff Act to maintain the measure of protection to the industry as recommended by the Board.

30. *Duration of duty.*—The protective duty of 30 per cent. *ad valorem* should be imposed immediately and remain for the period ending 31st March 1949. The *ad valorem* revenue duty has so far worked well in this case and we do not recommend its conversion into a specific duty notwithstanding our general preference for specific duties.

Burden of protection.

31. The incidence of cost of bichromates on cost of production of finished goods by the consuming industries was examined in consultation with representatives of the consuming industries. In the textile industry, bichromates account for 5 per cent. of the cost of the khaki cloth, in which they are used for mineral khaki dyeing. In the tanning industry, the bichromates account for 4 per cent. of the cost of tanned leather. Thus it was ascertained that before the war bichromates cost 2 pies per square foot of tanned leather, which was valued at 8 annas. Currently, bichromates cost 0·6 anna per square foot of leather, the price of which is Re. 1 per square foot. The proportion of cost of bichromates in the cost of production of paints and pigments is on the other hand very high, being in the neighbourhood of 60 per cent. It will thus be seen that, barring the paint industry, the incidence of cost of bichromates on cost of production of the finished article is not considerable. In any case, this point is not of much importance in the present investigation in view of the fact that we are not recommending any increase in duty but only the conversion of the existing revenue duty into a protective duty. It can therefore be said that there will be no increase in the cost to the consumer as a result of the imposition of the protective duty as recommended, though an indirect burden may be said to result in so far as a decline in the cost to the consumer, which might otherwise occur, may be prevented.

Eligibility for protection.

32. Though some of the factories engaged in production will no doubt disappear with the onset of competition, the Board is satisfied that the industry as a whole is well established and conducted on sound and efficient lines. The management of some of the factories are alive to the need for (a) research and experimentation, with special reference to economic utilization of by-products, and (b) capturing foreign markets without subsidization by the State.

33. As for the second condition, a comparison of costs of production with c.i.f. prices has already revealed that the Indian product can compare favourably in regard to price with either the British or the American product. The industry has thus already developed sufficiently to be able to carry on successfully without material protection or State assistance. This is a noteworthy

achievement, considering that the industry is only five years old, that the Indian output is a fraction of the output of some of the biggest factories in other countries and that factories had to be rigged up in wartime with indifferent material and often in the midst of serious handicaps. The assurance of protection given by the State to the bichromates industry in 1940 stated that the industry had served a vital national purpose at a crucial period, thus also fulfilling condition 2 (b) of the conditions laid down for eligibility for protection, *vide* paragraph 2 above. In short, the industry is qualified for protection or assistance.

Proposals for other assistance examined.

34. (*a*) *Facilities for export trade.*—The All-India Bichromate Manufacturers' Association has, on behalf of the industry as a whole, asked for assistance in certain ways in addition to protective duty. One request is for facilities for export trade. It has been stated that the prices quoted by British exporters for the Indian market are very much lower than for some of the overseas markets. For instance, a British firm recently quoted to a Norwegian enquirer a price of £102–13–0 f.o.b. England for sodium bichromate and £117–17–0 for potassium bichromate. Prices for the same articles for the Indian market are £76–11–0 and £73–10–0 per ton delivered ex factory and naked respectively. Some of the Indian producers wish to take advantage of this position and establish export contacts in foreign countries. Under these circumstances, the Board recommends that Government should give facilities for export of Indian bichromates. The industry is not asking for any monetary assistance for the purpose of establishing the export markets.

(*b*) *Rebate of duty on raw materials.*—Another request of the Association is that rebate of duty should be granted in respect of raw materials consumed by the bichromates industry. This point becomes irrelevant in view of our finding that the cost of production even after payment of duty on raw materials is well below the c.i.f. price at which imports can be landed in the country. It is only when the home producer is under-cut by imports from abroad that the question of rebate of duty will assume importance justifying serious consideration.

(*c*) *Export of Baluchistan ore.*—A further point urged by the Association is that superior grade of chrome ore from Baluchistan is exported to the United Kingdom while ore of lower grade is being supplied to the Indian manufacturers and that if the Indian manufacturer got superior ore, his cost of production would be lower and he would be better able to face competition from abroad. Here again, in view of our conclusion that the cost of production of bichromates in India is well below the cost of importation, the point loses its significance. Moreover, we are not satisfied that export of superior grade ore to the United Kingdom directly hits the Indian bichromates industry.

(*d*) *Freight rates.*—The question of railway freight affects all industries and is one for the Railway Rates Advisory Committee to tackle.

Restriction on imports.

35. It follows therefore that barring the protective duty and the steps to be taken by Government to make sulphuric acid available to the industry at Rs. 160 per ton, no other form of State assistance is called for. The Association pleaded for complete prohibition of imports in view of the fact that the Indian capacity far exceeds the Indian requirements and quoted the example of the British Dyestuffs industry in support of its demand. We are, however, not in favour of the suggestion that prohibition of imports should be continued indefinitely. The present restriction on imports should continue until effect is given to our recommendations.

Potassium bichromate.

36. All our discussion has so far pertained to sodium bichromate. Potassium bichromate is used mainly in the match industry and forms a small proportion of the total quantity of bichromates produced and consumed in the country. The price of potassium bichromate varies directly with the price of sodium bichromate as the latter is the base for the production of the former. The same duty which is imposed on sodium bichromate will be sufficient to protect potassium bichromate against imports from abroad.

Chrome compounds.

37. We have considered the case of chrome compounds, such as chrome alum, chrome acetate and chrome pigments. There is a possibility of some of these articles being imported as such or under proprietary names so as to neutralize the protection which may be granted to the sodium and pottassium bichromates industry. The All-India Bichromate Manufacturers' Association pressed that the imports of these compounds should be prohibited altogether, but we are not in favour of such action. We fell that if a 30 per cent. *ad valorem* duty is imposed on all chrome compounds as in the case of bichromates, the indigenous bichromates industry may not be affected adversely and there may be little danger from competition arising from the import of chrome compounds. The position should therefore be watched so that action could be taken in the event of chrome compounds being imported to the detriment of the bichromates industry. We accordingly recommend that there should be one head in the tariff schedule comprising sodium bichromate, potassium bichromate and chrome compounds, and that for all these items, there should be a protective *ad valorem* duty of 30 per cent.

Recommendations and conclusions.

38. Our recommendations and conclusions are stated as under :—

(1) The present revenue duty of 30 per cent. *ad valorem* should be immediately made into a protective duty which should be levied till the end of March 1949 (paragraph 28).

(2) Rupees 46 per cwt. should be taken as the limit for the c.i.f. price for the purpose of section 4 of the Indian Tariff Act, and if the c.i.f. price falls below that figure, the quantum of duty should be raised so as to maintain the measure of protection recommended by the Board, the fair selling price being assumed to be Rs. 60 per cwt. (paragraph 29).

(3) Government should take steps to ensure that sulphuric acid is made available at a price not exceeding Rs. 160 per ton to bichromates manufacturers [paragraph 23(*a*)].

(4) The same duty of 30 per cent. *ad valorem* should apply to sodium bichromate, potassium bichromate and all chrome compounds, which all together should form one item in the tariff schedule (paragraph 37).

(5) Restriction on imports should continue until effect is given to our recommendations (paragraph 35).

(6) The All-India Bichromate Manufacturers' Association should make arrangements for supplying standard quality of bichromates to consuming industries, and particularly to the paint and tanning industries. The quality should be at least 98 per cent. pure, the sodium sulphate content should not exceed 1 per cent. and the packing should be air tight (paragraph 20).

(7) The industry is advised to use lime stone instead of lime as a possible factor in the reduction of cost of production (paragraph 22).

(8) The industry is advised to undertake its own production of sulphuric acid in its campaign for a reduction in the cost of production. Action taken on this recommendation by the industry should be a relevant consideration if and when the industry comes up again for protection [paragraph 23 (*a*)].

(9) The All-India Bichromate Manufacturers' Association should actively undertake or support research on adequate scale for the recovery and economic disposal of sodium sulphate (paragraph 11).

(10) Government should grant facilities to bichromates manufacturers for export of bichromates to foreign countries [paragraph 34 (*a*)].

Acknowledgments.

39. The Board wishes to take this opportunity to acknowledge with thanks the very helpful and valuable co-operation and advice received by it from Dr. J. N. Ray of the Department of Industries and Supplies. Thanks of the Board are also due to Dr. Madan, its Deputy Secretary, for his valuable assistance throughout the investigation and preparation of report, to Mr. Raghava Rao, the Cost Accounts

Officer attached to the Board, for carrying out cost investigation of certain producers at very short notice, to Dr. Damle of the Bombay Government for his very useful advice and to Dr. Kelkar, Technical Adviser to the Board for general help throughout the inquiry.

SHANMUKHAM CHETTY,
President.

C. C. DESAI,
Member-Secretary.

NAZIR AHMAD,
Member.

H. L. DEY,
Member.

B. K. MADAN,
Deputy Secretary.

OOTACAMUND, *the 21st May* 1946.

APPENDIX I.

Department of Commerce (Tariffs) Resolution No. 218-T (55)/45, dated New Delhi, the 3rd November 1945.

In the statement on industrial policy issued by the Government of India on the 23rd April 1945, it was announced that, pending the formulation of a tariff policy appropriate to the post-war needs and conditions of the country and the establishment of permanent machinery for the purpose, Government would set up machinery for investigating claims from industries, which have been started or developed in wartime and which are established on sound lines, to assistance or protection during the transition period. A press communiqué issued on the same date invited industries to address their claims to the Secretary to the Government of India in the Department of Commerce.

2. Several industries have accordingly applied for assistance or protection, and on a preliminary examination of their claims, the Government of India have come to the conclusion that applications submitted by the following industries call for a detailed examination :—

(i) non-ferrous metals, including antimony ;
(ii) grinding wheels ;
(iii) caustic soda and bleaching powder ;
(iv) sodium thiosulphate, sodium sulphite anhydrous, sodium bisulphite ;
(v) phosphates and phosphoric acid ;
(vi) butter colour, ærated water powder colour ;
(vii) rubber manufactures ;
(viii) fire hose ;
(ix) wood screws ;
(x) steel hoops for baling.

Other applications are under the consideration of Government, and further action in their case will be taken in due course.

3. In addition to the industries which have applied for assistance or protection, there are certain industries the starting of which was considered essential by the Government of India under conditions created by the war. Early in 1940, Government announced that specified industries promoted with their direct encouragement during wartime might feel assured that, if they were conducted on sound business lines, they would, by such measures as Government might devise, be protected against unfair competition from outside India. In accordance with this decision, the following industries have been given an assurance of protection against unfair competition after the war :—

(i) bichromates ;
(ii) steel pipes and tubes up to a nominal bore of 4 inches;
(iii) aluminium ;
(iv) calcium chloride ;
(v) calcium carbide ;
(vi) starch.

Of these industries, only those engaged in the manufacture of bichromates, calcium chloride and starch have so far applied for assistance or protection during the transition period. The Government of India consider that the applications submitted by these three industries also call for immediate investigation.

4. For the purpose of these and any subsequent investigations, the Government of India have decided to set up a Tariff Board for a period not exceeding two years, in the first instance. The Board will consist of :—

PRESIDENT :

Sir R. K. Shanmukham Chetty, K.C.I.E.

MEMBERS :

Mr. C. C. Desai, C.I.E., I.C.S.

Prof. H. N. Dey, D.SC. (Lond.).

The Board will include one more Member whose name will be announced shortly. Mr. Desai will act as Secretary to the Board in addition to his duties as Member.

5. The Tariff Board is requested to undertake, in such order as it thinks fit, the investigation of claims put forward by the industries specified in paragraphs 2 and 3 above. In the case of each industry the Board will, after such examination as it considers necessary, report whether the industry satisfies the following conditions :—

(1) that it is established and conducted on sound business lines ; and

(2) (*a*) that, having regard to the natural or economic advantages enjoyed by the industry and its actual or probable costs, it is likely within a reasonable time to develop sufficiently to be able to carry on successfully without protection or State assistance ; or

(*b*) that it is an industry to which it is desirable in the national interest to grant protection or assistance and that the probable cost of such protection or assistance to the community is not excessive. Where a claim to protection or assistance is found to be established, *i.e.*, if condition (1) and condition (2) (*a*) or (*b*) are satisfied, the Board will recommend—

(i) whether, at what rate and in respect of what articles, or class or description of articles, a protective duty should be imposed ;

(ii) what additional or alternative measures should be taken to protect or assist the industry ; and

(iii) for what period, not exceeding three years, the tariff or other measures recommended should remain in force.

In making its recommendations, the Board will give due weight to the interests of the consumer in the light of the prevailing conditions and also consider how the recommendations affect industries using the articles in respect of which protection is to be granted. Since relief, to be effective, should be afforded without delay, the Board is requested

to complete its enquiries with all possible expedition and to submit a report as soon as the investigation of the claim of each industry is concluded.

6. The headquarters of the Board will be at Bombay, but it will visit such other places as it thinks necessary for purposes of its enquiries. Firms and persons interested in any of these industries, or in industries dependent on the use of the products of these industries, who desire that their views should be considered, should address their representations to the Secretary to the Board.

7. Any claims hereafter received from other industries which in the opinion of the Government of India are suitable for examination by the Board will be referred to the Board in due course for examination.

8. The Government of India trust that Provincial Governments and Administrations will afford the Board all the assistance which it may require and will comply with any request for information which may be addressed to them by it.

N. R. PILLAI,
Secretary.

APPENDIX II.

Names of witnesses, interests represented by them and the dates on which they were examined.

Consumers—	Date.
Mr. W. R. Monk, Shalimar Paint Colour and Varnish Co., Ltd., Association of Paint Colour and Varnish Manufacturers in India, Royal Exchange, Calcutta. (Paint Industry.)	18th April 1946.
Mr. C. W. H. P. Waud, Hard-castle Waud & Co., Ltd., Bombay. (Paint Industry.)	Do.
Mr. R. S. Pandit, Joint Managing Director and Jal N. Bhaisa, Esq., Chief Chemist, Western India Tanneries, Bombay. (Tanning Industry.)	Do.
Mr. J. B. Sane, M.Sc. (Tech.), A.R.I.C., Khatau Makanji Spinning and Weaving Co., Ltd., Ballard Estate, Bombay. (Textile Industry.)	Do.
Mr. R. A. Gokran, Morarjee Gokuldas Spinning and Weaving Co., Ltd., Sopari Baug Road, Parel, Bombay. (Textile Industry.)	Do.
Importers—	
Mr. N. K. Shahane, Sales Manager, Kantavala Nanavathi & Co., Ltd., Apollo Street, Bombay.	20th April 1946.
Producers—	
Mr. B. S. Lalkaka and Dr. L. A. Bhatt, All-India Bichromate Manufacturers' Association, Currimbhoy House, Outram Road, Fort, Bombay.	18th and 19th April 1946.
* Mr. Purushottamdas Popatlal, Pioneer Chromate Works, Bombay.	Do.
* Mr. Lalbhai P. Patel, Premier Chromate and Chemical Works, Ltd., Bombay.	Do.
* Mr. G. S. Thorpe, Buckingham and Carnatic Co., Ltd., Madras.	Do.
* Mr. H. V. Sreenivasa Rangachar, Works Manager, Government Dichromate Factory, Belagula.	Do.
Mr. Mohanlal T. Shah, Indentors' Syndicate, Advani Chambers, Sir P.M. Road, Bombay.	Do.

* Indicates Member of the All-India Bichromate Manufacturers' Association.

APPENDIX III.

List of manufacturers with their rated capacity and actual production.

Name of firm.	Location.	Year of commencement of production.	Actual production.				Annual maximum production capacity.
			1943.		1944.	1945.	
			TONS.	CWT.	TONS.	TONS.	TONS.
1 Union Chemical Industries Company, Limited.*	Calcutta ..	1943	25	0	7	36	56
2 Bengal Chemical and Pharmaceutical Works.	Do. ..	1941	1	15	Nil.	1 and 5 cwt.	48 but capable of expansion to 192 tons.
3 Chemical Corporation of India.	Do. ..	1941	18	6	5	45	70
4 Calcutta Industrial Chemical and Minerals.	Do. ..	..	6	2	Nil.	Out of production.	Not known.
5 Colour and Chemicals, Limited.	Do. ..	..	27	5	..	Do.	80
6 M. L. Ghosh and Company ..	Do. ..	..	3	5	..	Do.	Not known.
Krishna Chemical Works ..	Do. ..	1945	Nil.		Nil.	13	100
8 Indentors' Syndicate	Bombay ..	1940	133	13	160	138	480
9 Golden Chemicals, Limited ..	Do. ..	1942	112	4	180	180	540
10 Pioneer Chromate Works ..	Do. ..	1941	124	1	180	406	600
11 Premier Chromate and Chemical Works.	Do. ..	1941	204	6	500	689	900
12 Indian Chemical Company ..	Do. ..	..	1	0	Nil.	Nil.	52
13 Buckingham and Carnatic Mills.	Madras ..	1940	1,188	4	1,020	995	1,080
14 Cawnpore Chemical Works.	Cawnpore	1941	670	9	600	526	1,200
15 Mysore Government Dichromate Factory.†	Mysore State.	194	75	5	230	194	240
16 Kap Chemicals	Jwalpur ..	..	56	15	Nil.	Out of production.	600
17 Associated Chemicals, Limited.	Nagpur ..	1941	12	7	Nil.	5	180
			2,760	0	2,882	3,228	6,226

* New factory with a capacity for 1,000 tons per annum under construction. Manufactures potassium and ammonium bichromic acid also.

† Being expanded to 600 tons capacity.

APPENDIX. IV.

Notification of the Government of India, Department of Supply, dated New Delhi, the 25th October 1945.

No. SS/45.—In exercise of the powers conferred by sub-rule (2) of Rule 81 of the Defence of India Rules, the Central Government is pleased to make the following Order, and to direct with reference to sub-rule (1) of Rule 119 of the said Rules that notice of the Order shall be given to the public by publishing it in the *Gazette of India*:

THE CHROME COMPOUNDS CONTROL ORDER, 1945.

1. (1) This Order may be called the Chrome Compounds Control Order, 1945.

(2) It extends to the whole of British India.

(3) It shall come into force at once.

(4) The Chrome Compounds Control Order, 1944, is hereby repealed, provided that anything done under any of the provisions of that Order shall be deemed to have been done under the corresponding provisions of this Order.

2. In this Order,—

(*a*) "chrome compound" includes potassium bichromate, potassium chromate, sodium bichromate, sodium chromate and chrome alum.

(*b*) "Director, Chemicals" means the Director, Chemicals, in the Directorate-General of Supply, Government of India, New Delhi, and includes any officer authorized by him to perform all or any of the functions of the Director, Chemicals, under this Order.

(*c*) "Textile Commissioner" means the Textile Commissioner with the Government of India, Ballard Estate, Bombay, and includes any officer authorized by him to perform all or any function of the Textile Commissioner under this Order.

3. No person shall sell or otherwise dispose of any chrome compound except on presentation by the purchaser or other recipient of a valid licence in the form appended to this Order granted by the Director, Chemicals or the Textile Commissioner and in accordance with the terms and conditions of such licence:

Provided that no such licence shall be necessary for the sale of sodium bichromate or potassium bichromate to the extent of 2 cwt. per customer per month. Monthly statements showing the quantities of sodium bichromate and potassium bichromate and the names and addresses of the customers to whom the quantities are sold under the proviso shall be submitted to the Director, Chemicals, so as to reach him by the 10th of every month. The statements shall also indicate the quantity in stock on the 1st of each month, the quantity sold against licences granted to customers and the balance in stock at the end of the month.

4. Applications for licences to purchase or otherwise acquire chrome compounds, shall be made in duplicate in the form appended to this Order to the Textile Commissioner or the Director, Chemicals, according as the chrome compounds are required for use in a textile industry or for other purposes.

5. (1) The Textile Commissioner or, as the case may be, the Director, Chemicals may in his discretion reject or grant in whole or in part any application made under clause 4 and shall, if he rejects the application, inform the applicant, and if he grants it, issue a licence in the form appended to this Order, specifying therein—

(i) the quantity and type of chrome compounds to be supplied under the licence;

(ii) the name of the supplier from whom the chrome compounds may be obtained under the licence; and

(iii) the period for which the licence shall be valid.

(2) The licensing authority may also specify in the licence the price at which the chrome compounds will be supplied to the licensee and require the licensee to deposit with Government such sum as may be specified in the licence representing the whole or part of the price payable for the supply.

6. Every person who manufactures, consumes, holds stocks of, or deals in, any chrome compound shall maintain a true and accurate stock register showing the quantity of each type of chrome compound produced, acquired and disposed of by him from time to time and the daily and monthly balance of stocks held, and shall make the register available for the inspection of any person authorized in this behalf by the Textile Commissioner or the Director, Chemicals.

7. The Textile Commissioner or the Director, Chemicals, may, with a view to securing compliance with this Order,—

(*a*) require any person to give any information in his possession with respect to any business carried on by that or any other person;

(*b*) inspect or cause to be inspected any books or other documents belonging to or under the control of any person;

(*c*) enter and search, or authorize any person to enter and search, any premises, and seize, or authorize any person to seize, any chrome compounds in respect of which he has reason to believe that a contravention of this Order has been committed.

8. No person shall, with intent to evade any provision of this Order, refuse to give any information lawfully demanded from him under clause 7, or conceal, destroy, mutilate or deface any book or other document.

9. Any court trying a contravention of clause 3 of this Order may, without prejudice to any other sentence which it may pass, direct that any chrome compound in respect of which it is satisfied that that clause has been contravened shall be forfeited to His Majesty.

FORM.

(*See* Clauses 3, 4 and 5.)

(To be submitted in duplicate.)

PART I.

Application for permission to purchase or otherwise acquire chrome compounds (sodium bichromate, potassium bichromate, potassium chromate, sodium chromate or chrome alum).

1 Date.

2 Name of applicant.

3 Address of applicant.

4 Type of quantity of chrome compound required.

5 Quantity of chrome compounds held by applicant on the date of the application.

6 Name of person or firm from whom applicant prefers to purchase.

7 Purpose for which quantity in head 4 is required—

(*a*) whether for use in a Textile Industry;

(*b*) whether for use for any other purpose.

8 If use in head 7 is for Textile Industry,—

(i) number and date of the Textile Commissioner's order if any, for execution of which the purchase of chrome compounds is necessary, and/or

(ii) Whether for use for production of textile goods for civil consumption.

9 If use in head 7 is for a purpose other than Textile Industry,—

(*a*) precise purpose for which the purchase is necessary ;

(*b*) average monthly consumption for the said purpose during the twelve months previous to the date of the application.

I certify that the contents of this application are true to the best of my knowledge and belief.

Signature of applicant.

PART II.

Licence No. .

I hereby sanction subject to compliance with the instruction herein contained the sale of (quantity) of

Sodium. }
Potassium. } Bichromate/Chromate
Chrome Alum. }

by (name of seller) to

(name of applicant) at the following prices, namely :—

Please deposit Rs. being (a part of) the purchase price of the chrome compounds covered by this licence, in a Government Treasury or a branch of the Reserve Bank of India or of the Imperial Bank of India, and forward a copy of the receipted challan to (name of supplier). No supplies will be made to you under this licence unless the treasury receipt is delivered to the supplier.

This licence shall be valid from to

Director, Chemicals/Textile Commissioner,
New Delhi/Bombay.

Copy forwarded to (supplier) for advance information.

APPENDIX V.

(1) *Statement showing the quantity, value and average value per cwt. of imports of sodium bichromate into India since* 1936–37.

		1936-37.	1937-38.	1938-39.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.	1944-45.
I. Quantity of imports from—										
1 United Kingdom ..	Cwt. (000)	11·33	15·35	10·72	4·82	9·95	20·62	19·82	39·99	Information not available.
2 Japan	Do.	1·97	0·43	0·79	1·98	3·01	..	..	..	
3 Germany	Do.	1·97	3·55	1·78	0·79	..	..	..	..	
4 China	Do.	..	..	..	0·13	0·05	..	..	..	
5 U.S.A.	Do.	0·50	1·21	1·11	9·75	53·41	26·76	6·41	7·86	
6 Other countries ..	Do.	0·63	0·22	..	..	..	..	..	..	
Total ..	Do.	16·40	20·76	14·39	17·47	66·41	47·38	26·33	47·85	22·73 *
II. Value of imports from—										
1 United Kingdom ..	Rs. (Lakhs).	2·55	3·51	2·61	1·71	4·99	8·27	8·71	18·96	Information not available.
2 Japan	Do.	0·39	0·08	0·12	0·64	3·06	..	..	..	
3 Germany	Do.	0·41	0·76	0·41	0·19	..	..	..	..	
4 China	Do.	..	..	..	0·10	0·02	..	..	..	
5 U.S.A.	Do.	0·11	0·27	0·26	7·45	28·13	9·25	2·23	3·38	
6 Other countries ..	Do.	0·15	0·04	0·01	..	..	..	..	..	
Total ..	Do.	3·61	4·66	3·41	10·09	36·20	17·51	10·93	22·34	11·07 *
III. Average value per cwt. of imports from—		RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.
1 United Kingdom		22 8	22 14	24 6	25 7	50 2	40 1	43 15	47 7	
2 Japan		19 11	19 4	15 5	32 0	101 10	..	..	..	
3 Germany		21 1	21 5	23 5	23 12	..	..	..	..	
4 China		..	..	..	84 11	85 0	..	..	..	
5 U.S.A.		22 1	22 7	23 13	76 7	52 11	34 9	34 13	42 15	
Total, imports ..		22 0	22 7	23 11	57 12	54 8	37 0	41 11	46 11	48 11

* For 8 months only—April to November 1945.

NOTE.—The totals are corrected to two decimals from the original totals.

(2) *Statement showing the quantity, value and average value per cwt. of imports of potassium bichromate into India since* 1936–37.

		1936-37.	1937-38.	1938-39.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.	1944-45.	1945-46
I. Quantity of imports from—											
1 United Kingdom	Cwt. (000)	1·36	0·96	0·63	1·01	0·17	..	..	Information not available.		
2 Germany	Do.	2·33	2·67	1·45	0·77	..	..	..			
3 Japan	Do.	2·01	1·38	1·08	2·03	0·79	..	..			
4 China	Do.	..	..	..	0·50	0·14	..	..			
5 U.S.A.	Do.	0·18	0·45	0·81	1·95	5·54	1·60	0·10			
6 Other countries	Do.	0·27	0·05	..	0·04	0·34	..	..			
Total ..	Do.	* 6·02	5·51	3·97	6·30	6·98	1·60	0·10	..	0·58	..
II. Value of imports from—											
1 United Kingdom	Rs. (000)	38·63	28·19	19·01	67·49	11·73	0·09	0·08	Information not available.		
2 Germany	Do.	58·48	69·37	38·97	21·17	..	..	..			
3 Japan	Do.	45·87	33·37	23·44	162·15	73·73	..	..			
4 China	Do.	..	..	..	38·25	12·97	..	..			
5 U.S.A.	Do.	4·63	11·70	21·88	150·74	358·28	64·80	6·37			
6 Other countries	Do.	4·35	1·30	0·03	1·90	22·01	..	..			
Total ..	Do.	*147·99	143·93	103·33	441·70	478·71	64·88	6·45	..	89·48	0·05
III. Average value per cwt. of imports from—		RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.
1 United Kingdom		28 8	29 8	30 1	66 15	68 9	..	..			
2 Germany		25 2	25 15	26 14	27 6	..	..	..			
3 Japan		22 14	24 2	21 11	79 13	93 1	..	..			
4 China		..	..	..	75 14	92 10	..	..			
5 U.S.A.		23 11	26 0	27 0	77 4	64 11	40 9	63 11			
Total, imports ..		24 9	26 2	26 0	70 3	68 9	40 10	64 9	..	154 0	47 0

* Excluding imports into Burma. † 8 months—April to November 1945.

NOTE.—The totals are corrected to two decimals from the original totals.

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GOVERNMENT OF INDIA

DEPARTMENT OF COMMERCE

REPORT OF THE
INDIAN TARIFF BOARD

ON THE
CONTINUANCE OF PROTECTION TO THE SUGAR INDUSTRY

Cx. 2.62

BOMBAY 1947

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REPORT ON THE CONTINUANCE OF PROTECTION TO THE SUGAR INDUSTRY

Reference to the Board.

1. The Government of India, Department of Commerce, in their letter No. 134-T(36)/46, dated the 19th December, 1946 (Appendix I), pointed out that the period for which protection had been granted to certain old established industries, including the sugar industry, was due to expire on the 31st March, 1947, and requested the Tariff Board to investigate the claims of these industries to continued enjoyment of protection at the existing or a reduced or enhanced scale. Government referred in their letter to the continuance of the economic uncertainties which had made it impossible to conduct such an inquiry during wartime and asked the Board to evaluate, in a summary manner, the necessity or otherwise of continuing the existing measure of protection beyond the 31st March, 1947. In making its recommendations, the Board was asked to bear in mind the interests of both the manufacturers and the consumers. Government desired the considered opinion of the Board by the end of January 1947, as a decision must be taken well before the commencement of the budget session in order to enable them to introduce the necessary legislative measure in time, and, therefore, suggested that the Board might have a summary discusion with the representatives of the industries and other interested parties. The reference was subsequently confirmed in the Commerce Department Resolution No. 28-T(6)/46 dated the 20th January, 1947 (Appendix II).

Method of inquiry.

2. As the time at the disposal of the Board was not much more than a month and it was impossible to hold a detailed inquiry involving determination of costs of production and landed costs of imports for equation of domestic and foreign prices, we decided to compile such data as could be easily gathered from Government publications and records and to discuss with the representatives of the industry and other interested parties as to what should be done when the existing protective duties expired on the 31st March 1947. The Board decided to invite (*a*) representatives of principal associations of sugar producers in the country, (*b*) a few prominent importers and merchants, and (*c*) certain other individuals having intimate knowledge of the industry to a joint conference for discussion of the principal issues. A list of the associations and persons to whom invitations for the conference were issued will be found in Appendix III. The associations were also asked to submit their views a few days before the conference was due to meet. All the associations to whom the request was addressed were good enough to comply with it. The conference was held in the office of the Board in Bombay on the 12th and 13th of February, 1947. A list of the persons who attended the conference is given in Appendix IV.

Review of the proceedings of the conference.

3. The Board explained to the conference the purpose for which the meeting had been convened. It was pointed out that the sugar industry had been a protected industry since 1932 when the Sugar Industry (Protection) Act was passed. Since then there has been another tariff inquiry into the case of this industry in 1937. The protective duties which were imposed in 1939 as a result of the last tariff inquiry were due to expire in 1941, but owing to the intervention of the war in the meantime these protective duties have been continued without any inquiry by Continuation Acts from time to time. The last extension was agreed to by the Legislature in April 1946 for a period of one year, and an undertaking was given by Government that meanwhile the case of the industry would be examined and Government would decide as to what should be done in respect of this and other major industries. The proceedings of the Legislative Assembly leading to the grant of the extension were explained to the conference with a view to indicating the context in which the extension had been agreed to and the justification that would be demanded in the event of Government proposing further extension in respect of the expiring protective duties. It was pointed out that the principal criticism of the continuation was that these industries had grown up under the shelter of protection for a sufficiently long time—in this case 14 years—to enable them to stand on their own feet and were now placed in a particularly strong position. It was urged in the debate that protection should ordinarily be regarded as a temporary expedient intended to enable a struggling or distressed industry to overcome foreign competition either in the initial stages or during a period of depression and that protection would not be justified unless the industry could give an assurance that it would be in a position to dispense with the protective duties within a reasonable time. The Board asked the representatives of the industry to consider whether, in view of the cessation of imports because of which import duties had become inoperative it was really necessary to continue the existing protection. The industry was also asked to bear in mind that it had enjoyed protection for a period of 14 years and that, if it was not in a position to stand on its own legs now, it could hardly hold out the prospect of becoming independent of protection within the foreseeable future. The represenatives of the industry were also requested not to lose sight of the fact that, if they asked for a continuance of protection, the Board could not, under its terms of reference, recommend extension of protection for more than a year. The second possible alternative for the industry to consider would be whether its interest would be best served by maintaining the industry in the protective list but keeping the duties in abeyance so that, if during this period of one year there was any sudden rush of competition, Government by executive action might restore the protective duties. And the third alterantitive that presented itself to the Board was that, there being no case for the continuance of protection, the industry should be de-protected and such revenue duties should be imposed on sugar as might be thought proper by Government on purely revenue considerations. In connection with this third alternative, it was suggested that the act of de-protection might contain a proviso to the effect that, if at any time in future the industry felt that it was being threatened by foreign competition, it would be open to the industry to apply to Government for inquiry and protection and that Govern-

ment in such a case would order a Tariff Board inquiry and give such protection as might be found necessary as a result of such inquiry. The conference was also asked to consider whether the removal of protection would not encourage imports to some extent, thereby reducing the gap between demand and supply and causing a tendency towards lower prices, which might to some extent check the inflationary forces that have been at work in India during the last few years. It was pointed out to the conference that, when the Tariff Board made its last inquiry into the conditions of the sugar industry in 1937, it had been found that the price of sugar in India was not being governed by the price of the imported sugar but that it was being entirely regulated by internal competition, which might lead to the inference that even as long ago as 1937 the industry did not stand in need of protection or such quantum of protection as was being given at the time. The industry was also asked to indicate the progress it had made towards a position of independence since protection was first given in 1932. It was pointed out that, whereas the incidence of the protective duty in 1932-33 was something like 130 per cent. on the then prevailing c.i.f. prices, the incidence of the protective duty, exclusive of the countervailing duty equivalent to the excise duty, levied in 1939 was of the order of 180 per cent, showing thereby that the gap between the c.i.f. price and the fair selling price of sugar, instead of becoming narrower at the end of the first period of protection, had actually become wider. It was also brought to the notice of the conference that some 90 out of 150 units of the industry were below what is to-day considered, say, by the Sugar Panel, to be an economic unit, and that the industry had not been able to make any appreciable progress in the utilization of its principal by-products, such as, molasses and bagasse.

Burden of proof that continuance of protection is necessary rests on the industry.

4. The industry was requested to bear in mind that, if it asked for continuance of protection, the burden of proving that protection was necessary under the conditions of to-day rested heavily on the industry. It was pointed out that protection had to be justified broadly on the following principles : (*i*) that there exists competition from which the indigenous industry requires protection ; (*ii*) that the protection required is temporary and could be dispensed with within a reasonable period ; (*iii*) that the cost to the consumer arising out of the protection is not excessive ; and (*iv*) that the industry is run on sound business lines. The eligibility of the industry for protection was, of course, not in doubt or disputed, it being an industry of sufficient national importance.

Importance of the interest of consumers.

5. The Board laid considerable stress on the interest and requirements of the consumer. The industry was requested particularly to consider what should be done to increase the supply of sugar, there being a gap of about 5 lakh tons between estimated demand and supply. The Board would like to examine if some relief to the consumers could not be given by a reduction of the protective duty. It was agreed that the world sugar position was still tight and that the volume of imports would be determined more by the exportable surpluses in the main producing countries than by the level of

duties in this country. But even so, it was arguable that a small stream of imports might somewhat ease the supply position.

Industry's case for continuance of protection.

6. Mr. Lalchand Hirachand, representing the Indian Sugar Mills Association presented the case on behalf of the sugar industry as a whole. He re-affirmed what his Association and the other principal Associations had stated in their written replies and contended that the time for the de-protection of the sugar industry had not yet arrived. He pointed out that the industry had shown phenomenal progress in so far as increase of its output was concerned, and that considerable advance had also been made in respect of its manufacturing effieciency, but that the initial handicap of the industry on account of the comparatively low quality and high cost of its raw material, namely, sugarcane, still continued practically the same as before. He maintained with a good deal of emphasis that if this original handicap in respect of sugarcane still remained, the repsonsibility for such a state of affairs should be laid on Government rather than on the industry. He further added that protection in this case had been intended not so much for the sake of the manufacturing industry as for the agricultural side of it, and that so long as production of sugarcane in India remained inefficient as compared with that of rival countries like Java, Cuba, Hawaii, etc.—and it was likely to remain so for many years to come—the protection to the industry must be maintained. He admitted that there had been no competition from imports in recent years, and that there was no competition at present, but suggested that there were clear indications that the sugar industry in Java and in other main sugar producing countries was being rapidly rehabilitated, as a result of which imports of sugar might come into the country at competitive prices within a couple of years. He pointed out that the price of Java sugar in 1936-37, when the last Tariff Board inquiry was held, was as low as Rs. 2/- per maund and that even assuming that the price of sugar in Java had gone up by 4, 5 or 6 times, it would still remain far below the present price of sugar in India, which is in the neighbourhood of Rs. 22/-. He further pointed out that so long as the cultivation of sugarcane in Java continued to be incomparably superior to that in India on account of the fact that sugarcane was being produced in Java by the factories themselves under a highly organized and scientific system, while its cultivation in India for the major part continued to be carried on by small farmers without proper resources and organization, the difference in the quality and cost of sugarcane in the two countries was bound to remain great, thereby materially affecting the competitive capacity of the Indian sugar industry. He claimed that many of the units of the sugar industry in India could manufacture sugar nearly as cheaply as Java provided that they got their sugarcane of as high a quality and at as low a price as in Java. It was also urged that, though protection had been in existence nominally for a period of 14 years, the last six or seven years were abnormal in that the industry had little chance to import machinery in order to expand its productive capacity and inprove its efficiency, or carry on experiments in the utilization of by-products. It was further contended that the industry had been severely controlled during the last few years in respect of its prices and profits and that the industry did not have

any chance to build up adequate reserves for post-war expansion and improvement. It was also pointed out that due to the " Grow more food " campaign in the country, the supply of sugarcane to the factories in many parts of the country was totally inadequate and that on account of the market price of gur being for the most part appreciably above its control price, which is also its theoretical parity price in relation to the price of sugar, the cane cultivators in many places converted their sugarcane into gur and refrained from supplying adequate quantities of sugarcane to the factories which led to an appreciable reduction in output in many factories. In view of these special and abnormal handicaps from which the industry had suffered and due to which the industry could not strengthen its financial position and improve its manufacturing efficiency during wartime, it was entitled to a continuance of protection. This line of argument was strongly supported by Lala Gurusharan Lal, Mr. Krishna Deva and Mr. J. S. Mehta of the Indian Sugar Mills Association, Mr. D. M. Dahanukar and Mr. K. G. Somaiya of the Deccan Sugar Factories Association, Mr. G. N. Todd of the South Indian Sugar Mills Association, Mr. B. P. Dalmia of the Bengal Sugar Mills Association and Mr. R. P. Nevatia of the Indian Sugar Syndicate.

U. P. and Bihar Governments' point of view.

7. Mr. B. B. Singh, Chairman, Sugar Commission U.P. and Bihar, stated that the objective of protection in this case should now be not merely to protect the industry from foreign competition but also to make the country self-sufficient in respect of sugar. For this purpose, he said, it was necessary to attract capital for the expansion of the industry to a considerable extent. He pointed out that the period of 14 years for which protection had been already given had been for the most part an abnormal period in which there were labour unrest, a World War and political uncertainties due to which the industry could not feel that confidence in the future which was necessary for its expansion and improvement to such an extent as was both desirable and practicable. His information was that Java and Cuba were going to fight against the protective duty on sugar in India and that if this duty was taken away now, it would be very difficult in the contest of the present world tendencies to reimpose it. He suggested that the present protective duties might be used as a sort of bargaining counter at international conferences and that they might be gradually removed later on if circumstances warranted such a course. He feared that, if these duties were taken off now, capital would become shy and there would be absolutely no expansion of the industry either by replacement of the present plants or by the setting up of new factories and that such a step would cripple the industry, in which case the object of self-sufficiency of the country in sugar would be totally defeated. Referring to the present inadequacy of the supply of sugarcane to the factories, he believed that, within two or three years, wheat prices might appreciably fall and that, in that event, the price of sugarcane would become relatively more attractive to the grower, and a more plentiful supply of sugarcane would be available to the factories. He concluded by saying that the views of both U.P. and Bihar Governments, whom he represented, were that the present protective duties should be continued for at least another three years, if possible, and that the proper time for a

general inquiry into this question might arrive at the end of 1949 or in the beginning of 1950.

Khandsari industry's point of view.

8. Mr. Sheik Mohd. Jilani, President of the Khandsari Manufacturers' Association stated that *khandsari* production was also a very important section of the sugar industry in the country and that, though this section had not become as efficient as it should be, its maintenance was essential to the welfare of sugarcane growers, particularly in Rohilkhund, where the area under cane was about one-tenth of the cane area in India. He also pointed out that *khandsari* was truly a cottage industry which had a link with agriculture and had the advantage of low overhead charges and was, therefore, able to operate in remote rural areas where large-scale factories could not be established. He stated further that, if Government had given half as much attention to the *khandsari* industry as had been given to the sugar factories, there could have been much progress in *khandsari* as well. As *khandsari* industry was still in a comparatively backward condition, it could not at present compete with foreign sugar. He, therefore, pleaded that the present protection to the sugar industry should be continued, and that a special inquiry should be made into the *khandsari* industry when normal conditions returned.

Importers' point of view.

9. Sheth Jagjivan Ujamshi of the Bombay Sugar Merchants' Association, speaking on behalf of importers and merchants, stated that, according to his information, the c.i.f. price of sugar at the present time would be about Rs. 1,100 per ton and that it was on this basis that Polish sugar had been recently sold in the world market. This price was about double the price of Indian sugar. He, therefore, urged that there was no need for protection to the sugar industry at the present time. Apart from comparative prices, Mr. Ujamshi continued, there was also the question of the gap of about 5 lakhs of tons between demand and supply in India, and he argued that a handicap like protective duties should be removed or reduced so as to encourage import of sugar as much as possible at the present time. As regards the suggestion that Java might soon be in a position to export sugar to India at a low price, Mr. Ujamshi stated that Java's productive capacity in sugar was still very low, some-where about 30,000 tons a year, though it was reported that there was a pile-stock of about a million tons, about half of which might be available for export. He also stated that the world sugar position was still tight, there being a shortage of over 30 per cent. in relation to demand and that Java would not be able to increase her production so as to have an exportable surplus during the next 4 or 5 years. Mr. N. T. Mone, the Sugar Controller, Government of India, also informed the Board that he did not expect that foreign sugar would be available to India at present at less than double the internal price of sugar in the country.

Control and protection.

10. Mr. N. C. Mehta, who was the first Sugar Controller during the last war and who had a lot to do with the sugar industry even previously suggested that since sugar was subject to complete control in respect of its production, distribution and price, there was no need for protection at the present time. He thought that

so long as the present control continued; protection was entirely unnecessary and ineffective and might be held in abeyance. He pointed out that under the present system of control, all sugar, indigenous or imported, would be sold at a uniform price fixed by the Controller, so that there would be no question of the indigenous producers being undercut by importers. He stated that the sugar control was not a war-time phenomenon because it had already been there in U.P. and Bihar even before the war and that it was bound to continue even in future. Mr. Mone, the present Sugar Controller, Government of India, did not agree with Mr. Mehta that protection would be unnecessary or that control was bound to continue, and that though personally he thought that there might be a continuance of control for another two or three years, there was no guarantee of it. All that he could say was that sugar control would continue for another year. He suggested that the question of protection should be examined on its own merits independently of the continuance or discontinuance of control.

Mr. Mone expressed the view that protection should certainly not be withdrawn owing to the repercussions which it would have on the industry and the cane grower. He suggested that the protection should be continued, as it would have a steadying effect upon all concerned and also act as a powerful check against dumping of sugar by foreign countries. The representatives of producers did not at all accept the view that control had been beneficial to the industry. They asserted that control had been responsible for a reduction in the suply of sugarcane to the factory with a consequent decline in output, that it had not succeeded in effectively controlling the price of gur with the result that the supply of cane even in the factory areas was diverted from the sugar factories to gur production, and that the control price did not make sufficient provision for depreciation and reserves. The Sugar Controller explained the method of price fixing and pointed out how care had been taken to allow for an increase in the cost of sugarcane, wages and salaries, and in the prices of stores, though he admitted that a number of sugar factories had not been able in recent years to obtain a reasonable margin of profit.

Progress of the sugar industry.

11. When the policy of protection was adopted in 1932, there was a very great expansion of the industry within the first three or four years. The number of sugar factories rose from 32 in 1931-32 to 57 in 1932-33, 112 in 1933-34, 130 in 1934-35 and 137 in 1935-36. Thereafter, further expansion was extremely slow and halting, as will be evident from the fact that durng the followng 4 years from 1935-36 to 1939-40, the number of factories only rose from 137 to 145. The output also rose from 158,781 tons in 1931-32 to 1,111,400 tons in 1936-37 and 1,241,700 tons in 1939-40, which is the maximum output so far attained. In the next seven years, there was a small increase in the number of factories operating, the maximum number being 151 in 1943-44, but the output fluctuated between the lowest figure of 778,100 tons in 1941-42 and 1,216,400 tons in 1943-44. During the last three years, production has been in the neighbourhood of about one million tons. The decrease in output since 1939-40 and particularly since 1943-44 is not due to any decrease of capacity, but due partly to short supply of cane and partly to other factors like transport difficulty and non-availability

of stores. The figures given above relate to the factories which produce sugar direct from cane. There are also a few other factories which refine gur into sugar. Their number is small and their production has been decreasing and is at present of the order of 6,000 tons. Sugar is also produced in the country by *khandsari* process. This is also declining and the output of this section of the industry in recent years is roughly estimated to have been between 75,000 tons and 150,000 tons per annum. A statement showing the number of sugar factories actually working and the production of sugar from 1931-32 to 1945-46 is given in Appendix V. The Sugar Panel appointed by the Departmentof Planning and Development of the Government of India, estimates the present capacity of the industry at 10,80,000 tons. The Panel also estimates that by 1950, the requirement of the country in sugar would be 15,50,000 tons and, after providing for export of 50,000 tons to neighbouring countries, recommends a target production of 16 lakhs of tons for the period ending 1950, and for this purpose recommends the expansion of existing smaller units to a capacity of 800 tons and the addition of 20 new units including five new projects already approved by the Government of India. The Sugar Controller, however, estimates that the demand in the next three years would be of the order of 18 lakhs of tons and he suggests the installation of some 45 new units in the industry. So far as the technical efficiency of the industry is concerned, the recovery of sugar from sugarcane increased from 8·70 per cent. in 1934 to 10·2 per cent. in 1944-45. This is still below the level of recovery of 11·49 per cent. in Java (1936-37), 12·05 per cent. in Formosa (1938), 14·22 per cent. in Queensland (1940), 10·74 per cent. in Hawaii (1941), 11·60 per cent. in Natal (1941), 11·48 per cent. in Mauritius (1941) and 12·33 per cent. in Cuba (1933). In considering the question of progress in the matter of recovery, it must, however, be remembered that the percentage of recovery of sugar from sugarcane does not merely depend on the technical efficiency of the plant at the factory. It also depends considerably on the sucrose content of sugarcane and the condition in which sugarcane reaches the factory, depending upon the state of maturity of the cane, the distance of the cane field from the factory and the nature of transport. Making due allowance for differences in the quality of sugarcane, the overall technical efficiency of factories in India increased from 83·35 per cent in 1934 to 85·04 per cent. in 1940-41. Considering the serious deficiencies of the transport system in the sugarcane areas of India, 85·04 per cent. technical efficiency of sugar factories in India would compare favourably with 86·36 per cent. technical efficiency in Java (1932), 86·32 per cent. in Cuba (1931) and 82·61 per cent. in Natal (1941). So far as progress in the cultivation of sugarcane is concerned, the 1937 Tariff Board found that, during the seven years from 1930-31 to 1936-37, the acreage under sugarcane had gone up from 29 lakhs of acres to 46 lakhs of acres, the acreage under improved varieties of cane from 8 lakhs of acres to 33 lakhs of acres and the yield of cane per acre from 12·3 tons to 15·6 tons. Thereafter, due to the various handicaps imposed by the War, much progress in these directions has not been possible. There is still great scope for improvement in the quality of cane regarding its sucrose content and also in respect of the yeild per acre, but progress in this matter would involve further intensive research at the cane-breeding stations, extensive and continuous experiments in the cultivation of new varieties of cane in the

Government (experimental) Sugarcane Farms and a determined effort on a wide front in translating the results of these researches and experiments in terms of output and cost at the cultivator's field and in equipping him with the necessary means of carrying on intensive cultivation of sugarcane in his own farm. This would call for an extensive Government organisation and large scale public expenditure on the agricultural side. We are informed that the Government of India have placed at the disposal of the Indian Central Sugarcane Committee funds at the rate of one anna per cwt. from the excise duty on sugar and have also made in 1945 a special grant of Rs. 125 lakhs to the Committee for a five-year research programme. It is also reported that the Government of U. P. has planned to spend something like Rs. 80 lakhs out of the cane cess on road development in the sugarcane areas, during the next five years. When all these plans are given effect to, we expect that there will be a great improvement in the quality of sugarcane as well as in the yield per acre, but this is admittedly a slow and long process. In planning for the future improvement of the sugar industry, particularly in its agricultural aspects, we must remember that we have to traverse a very long distance yet to reach anywhere near the same level of efficiency as prevails in Java. It may be pointed out in this connection that (1) in 1936-37 the yield of sugarcane per acre in Java was 56·2 tons as compared with 15·6 tons in India and (2) the cost of sugarcane in Java in 1937 was stated to be one anna per maund as compared with 4 to 5 annas per maund in U. P. and Bihar, 7 annas per maund in Bengal and 7 to 12 annas per maund in Bombay in the same year. Regarding the progressive efficiency of the Java sugar industry, the Tariff Board of 1937 found that the cost of production of sugar in that country had gone down from 12·87 guilders per 100 Kilos. in 1926 to 3·75 guilders in 1937, *i.e.*, a reduction of cost by more than 70 per cent. in a period of 11 years. We have referred to these details of cost of production of sugar in Java, because she was India's strongest competitor in the sugar industry in the past and is also likely to remain the chief potential competitor in future. The Sugar Panel has recommended that the present Central Government grant to the Indian Central Sugarcane Committee of one anna per cwt. of sugar from the excise duty should be increased to four annas per cwt. In view of the great leeway to be made up before India can achieve a parity of competitive efficiency with Java and other foreign countries in the sugar industry, we endorse this recommendation of the Sugar Panel. The Tariff Board of 1937 recommended that the possibilities of establishing industries subsidiary to the sugar industry, such as the conversion of molasses into power alcohol, food yeast, fertilisers, potash and edible sugar syrups and the utilisation of bagasse for manufacture of packing papers, inferior grades of papers and paper boards, cellulose and artificial silk, bottles and glasses, should be properly investigated. We attach great importance to this recommendation and further suggest that all possible facilities should be given to the sugar factories to establish these subsidiary industries.

World's Sugar Position.

12. Sugarcane and beet are the two principal sources of world's sugar supply. The total average production of sugar in the world from 1930-31 to 1934-35 was about 24,000,000 tons per annum and from 1934-35 to 1938-39 it was about 28,000,000 tons per

annum. Approximately two-thirds of the sugar produced in the world at present is from sugarcane. According to the estimates published by Messrs. Willet & Grey, London, the world's total production of sugar during the last few years was as follows :—

	Tons.
1936-37	29,000,000
1937-38	29,000,000
1944-45	26,000,000
1945-46	23,000,000

The world's production of 23,000,000 tons in 1945-46 was 6,000,000 tons or 21 per cent. less than the normal prewar output of 29,000,000 tons. It is expected that production will rise to over 27,000,000 tons in 1946-47 but this will depend upon the pace of recovery in the liberated countries. It is possible that production may be restored to the normal prewar levels within the next two years. The war has been responsible for a heavy decline in the world's sugar production and for a reduction in the stocks of sugar. Output has been drastically curtailed in Europe and the Far East and it is unlikely that these areas will be able to produce sugar on the pre-war scale before 1948. During the last three years, the Allied Governments drew heavily on the stocks of sugar, which had been built up by careful conservation of the world's supplies and today invisible stocks have virtually ceased to exist and visible stocks are lower than at any time in the past. So far as Java is concerned, "Commerce", of July 6, 1946, a publication of the United States Department of Commerce, reports, that by 1943, production in that country had been reduced to 682,900 tons, by 1944 to 496,804 tons and by 1945 to the low figure of 83,000 tons. Of the 85 sugar mills in operation in 1942, only 44 are reported to have worked in 1944. Only a few Chinese and Indonesian factories are reported to be in operation at present, and the expected output of the refined sugar for this year is only 20,000 tons. In estimating the production potential following restoration of political stability, it should be noted that the Japanese had made seed provisions for a sugar crop of 700,000 tons in 1947. The Department of Economic Affairs, U. S. A., estimates that one year after safety and stability are restored in Java, a crop of 1,500,000 tons of sugar can be harvested in that country. In addition, 51 out of the 85 sugar factories are reported to be in good working conditions and by keeping them in operation for six months of the year, the full crop can be handled. Of the estimated stock-pile of 1,594,350 tons of sugar in the interior of Java, about 400,000 tons are not packed in sacks. Furthermore, none of this stock-pile has been transported to the harbours because it is located in the areas outside British and Dutch military control. It is reported that of the total stock-pile, approximately 1,100,000 tons are in a saleable condition, about 600,000 tons of which could be made immediately available for export, if it could be moved to the ports, the remaining 500,000 tons being needed for current consumption in Java. Messrs. E. D . and F. Men, London, under date of 29th July, 1946 estimate that the output of sugar in Russia will go up from 1·3 million tons in 1945-46 to 2·5 million tons in 1946-47, as compared with 2·54 million tons in 1939-40 ; the output in Germany in 1945 will go up from 738,000 tons in 1945-46 to 1·5 million tons in 1946-47, as compared with 2·89

million tons in 1939-40. The output in U.S.A. will go up from 1·6 million tons in 1945-46 to 1·9 million tons in 1946-47, which is also the figure for 1939-40; the output in Cuba, however, will go up from 4 million tons in 1945-46 to 4·9 million tons in 1946-47 which is 2·1 million tons above the figure of 1939-40. The output figures of 670,000 tons in Australia in 1945-46 will remain unchanged in 1946-47 and it will be 263,000 tons below the figure of 1939-40. Similarly, the output of South Africa is expected to be reduced from 480,000 tons in 1945-46 to 410,000 tons in 1946-47, which is only 3,000 tons higher than the figure of 1939-40. These figures would show that the estimated output in 1946-47 will be smaller than that of 1939-40 in most countries, except Cuba and U. S. A. and that production in Cuba in 1946-47 will be appreciably higher than that in 1939-40 and production in U. S. A. in 1946-47 will be the same as the output in 1939-40. The overall position, however will be that the total estimated output in 1946-47 *viz.*, 27,000,000 tons will be 4,000,000 tons above the figure for 1945-46, which indicates a definite upward trend in the world production of sugar.

Import trade in sugar.

13. From the statistics of imports of sugar (Appendix VI and Appendix VII), it will be found that during the three years from 1936-37 to 1938-39, the volume of imports averaged a little below 22,000 tons per annum and its value averaged approximately Rs. 26 lakhs per annum. In 1939-40, the first year of the war, figures of imports shot up very greatly, the volume being 251,707 tons and its value being Rs. 3,25,33,763. The total imports during the following three years, from 1940-41 to 1942-43, amounted to 67,978 tons, out of which 61,634 tons were re-exported, thereby leaving a little over 6,000 tons of imports for consumption in India in the three-year period. During the next following three years, from 1943-44 to 1945-46, practically no imports came on India's own account. It may, therefore, be said that the import of sugar for consumption in the country during the last six years, from 1940-41 to 1945-46, has been very small and insignificant. There has been so far no imports of sugar during the current year (1946-47). The Sugar Controller, Government of India, informed us that he had been promised by the Combined Food Board a quota of 30,000 tons of sugar for the country which would be available in June or thereafter. He also informed us that the quotations he had received from various other sources indicated a c.i.f. price which was about double the present price of Indian sugar. Mr. Jagjivan Ujamshi, a representative of importers and merchants, also stated that the world price of sugar was at present in the neighbourhood of Rs. 1,100 per ton and that no sugar in sizeable quantities was available for importation into the country at the present time. The present shortage of sugar in the world as a whole may continue at least for another year, and it is expected that the position may become somewhat easier towards the end of 1947-48.

Export trade in sugar.

14. Under the International Sugar Agreement of 1937, India was debarred from exporting sugar by sea to any foreign country except Burma. That Agreement expired in 1942. In the pre-war period, there were, however, small quantities of exports of sugar to neighbouring countries like Afghanistan, Nepal, Burma, Ceylon, etc. The exports amounted to 45,000 tons in 1936-37, 40,000 tons in 1937-38 and 32,000

tons in 1938-39. During the three years, 1943-44, 1944-45 and 1945-46, exports amounted to 18,000 tons, 16,000 tons and 15,000 tons respectively. The Sugar Panel in its report has recommended that India's production target must provide for annual exports up to 50,000 tons, which would provide a sort of safety valve for fluctuations in the internal demand and supply. Since the requirements of sugar in the country has been estimated at between 16 lakhs and 18 lakhs of tons per annum during the period ending 1950 and since the present production is in the neighbourhood of only 11 lakhs of tons, there does not appear to be any great scope for exports of sugar from India in the near future, except in small quantities, which are permitted for special reasons.

Case for continuance of protection.

15. In examining this question, we have to consider, first of all, whether there is any danger at the present time of imports coming into the country at a price lower than the price of sugar in India. It was not possible for us to obtain very detailed information on this matter. We were informed by the Sugar Controller that he had just been promised a quota of 30,000 tons of sugar by the Combined Food Board and was expecting to get some more supplies of sugar in the near future. He stated that he had so far no information at all about the price at which this quota of import would be available. He added, however, that certain other quotations he had received for supply from other sources indicated a c.i.f. price of sugar in India which would be nearly double the present price of the article in the country. Mr. Ujamshi of the Bombay Sugar Merchants' Association, also mentioned the figure of Rs.1,100 per ton as a possible c.i.f. price of imported sugar, if and when available for the country. The present control price of sugar in India is Rs. 20/14 per maund *ex*-factory in all the provinces except the Punjab and the North-West Frontier Province where it is fixed at Rs. 24 per maund *ex*-factory. On this basis the price of Indian sugar at ports would be of the order of Rs. 600 per ton. A comparison of these prices would indicate that in the conditions of to-day the Indian sugar industry need not fear any competition from imports coming at a lower price. It is possible that the cost of production of sugar in some other parts of the world might be lower than that in India. We may mention in this connection that in 1946 the control price of raw sugar (96°) was approximately Rs. 208 per ton in Durban, and Rs. 236 and Rs. 139 per ton for home consumption and export (surplus sugar) respectively in Queensland. But so long as there is a short supply of sugar in India, there would be little likelihood of imports being sold in the country at a price lower than the price of indigenous sugar, even if such imports were landed in the country at a lower price. This would be the position if there were no control of sugar in the country. And so long as control continues, there must, of course, be a uniform price for all sugar, imported or indigenous. Consequently, it might be argued that no harm would be done to the sugar industry if protection were withdrawn for the time being. But we must not lose sight of the fact that the present world position of sugar and the existing levels of sugar prices in the world are abnormal and are likely to change materially in the next two years or so. When political stability is restored, it will be possible for Java and other main sugar producing countries to increase their output and possibly reduce their cost of production within a

year or two and there would then be a possibility of the imports of sugar coming into the country in fairly substantial quantities and at lower prices. The Tariff Board of 1937 estimated the fair selling price (inclusive of excise duty) of sugar in India at Rs. 8-5-4 per maund. The present price of sugar in the country is Rs. 20-14-0 *ex*-factory in the main sugar producing areas. This increase of approximately Rs. 12-8-8 is to be largely accounted for by an increase in the price of cane from 5 annas 6 pies to Rs. 1-4-0 per maund and an appreciable rise in wages and salaries, in the prices of other materials, and also a rise in the excise duty on sugar from Rs. 1-7-6 per maund to Rs. 2-3-3 per maund. The c.i.f. price of Java sugar in 1937 was estimated by the Tariff Board at Rs. 2-7-0 per maund and in 1939 by the Government of India, Department of Commerce, at between Rs. 3-8-0 and Rs. 4-3-8 per maund. Even if we take the highest of these figures, *viz.*, Rs. 4-3-8 per maund, the c.i.f. price of Java sugar must now rise at least five times as compared with what it was in 1939 in order to become as high as the present price of sugar in India. Should the c.i.f. price of Java sugar be higher than the 1939 figure by as much as 200 or 300 per cent., even then it would be possible for Java sugar to undercut Indian sugar by a fairly big margin. This is one side of the picture. Looking to the other side, *viz.*, the possible variation of price of sugar in India, it does not seem probable that the price will go down in the near future. The price of sugarcane and the price of sugar in the country have gone up continuously during the last few years. The price of sugar rose from Rs. 11-9-0 per maund in 1941 to Rs. 13-0-0 per maund in 1942, Rs. 14-8-0 per maund in 1943, Rs. 16-4-0 per maund in 1944 and Rs. 20-14-0 per maund in October 1946. It is not improbable that this price may go up still higher in the near future. For one thing, it is reported that the sugarcane producers in U. P. and Bihar are not satisfied with the present price of Rs. 1-4-0 per maund of sugarcane and are demanding a price of Rs. 2-0-0 per maund. The Sugar Controller has furnished us with a statement of index numbers of prices (Appendix VIII) from which we find that the price of sugarcane is at present much below parity with the prices of wheat and rice. Thus, taking 100 as the base price of each of the three articles in August, 1939, the index number of sugarcane rose to only 205 in July, 1946, as compared with 632 for wheat and 334 for rice in the same month. If the prices of wheat and rice continue to rule at their present levels, it might be necessary to raise the price of sugarcane still further. For another thing, there is a strong demand from labour for an increase in wages. We were informed that the U. P. Government had recently decided, on the recommendation of a Labour Inquiry Committee, to request the owners of the sugar factories in the Province to grant, with effect from the beginning of the current crushing season (1946-47) an increase of wages ranging from Rs. 13-0-0 or 57 per cent. in the case of lowest wage group earning Rs. 23-0-0 a month to Rs. 11-0-0, or 22 per cent. in the case of the wage group earning Rs. 50-0-0 a month. It is also reported that the same Government is at present considering certain other recommendations of the Labour Inquiry Committee regarding the grant of a bonus and an off-season retaining fee to all workers in the sugar factories as well as the grant of suitable increment of wages in the higher wage groups. In the light of these tendencies we may assume that the price of sugar in India is not likely to go down in the near future. On the contrary, it is probable that it will go up. Having regard to the present price

of sugar in India and the probability of a further increase in that price and taking into consideration the big gap lying between the Indian price and the possible c.i.f. price of Java sugar, we feel that the Indian sugar industry might run the risk of being undercut by lower-priced imports of Java (or other foreign) sugar after one or two years.

Board's recommendation regarding continuance of protection.

16. We have seen that during the six years from 1940-41 to 1945-46 and the last few months of the current year (1946-47), there were virtually no sizable quantities of imports of sugar into the country. During the whole of this period, therefore, the present protective duty has been practically ineffective, nor has it imposed any burden on the consumer. We have also seen that no sizable quantities of sugar are likely to be available for importation into the country during the next twelve months or so, and that such quantities of imports as may be available are likely to come at a price much higher than the internal price of sugar in the country. It would follow that the present protection is likely to continue to remain unnecessary for a further period of 12 or 18 months from now. In these circumstances it might have been thought appropriate to terminate the present protection. But, as we have indicated earlier in the report, the world sugar industry is likely to be rehabilitated and its production stepped up to normal prewar levels in a period of 18 months or two years. It is, therefore, probable that competition in the sugar trade may begin again in about two years' time. In such an event, it will also be possible for imports to come into the country in appreciable quantities so as to compete with Indian sugar. It is not possible for us now to anticipate what the world price of sugar is likely to be in about two years' time, because, it will depend partly on the post-war cost of production of sugar in other countries and partly on the general currency and price policy followed in those countries. The fact, however, remains that in 1937-39, the c.i.f. price of Java sugar was estimated to have varied between Rs. 2-7-0 per maund and Rs. 4-3-8 per maund. Taking this important fact into consideration, we do not see any reason to think that the c.i.f. price of Java sugar may rise to as high a figure as the present price of sugar in India, *viz.*, Rs. 20-14-0 per maund *ex*-factory. Java was India's main competitor in the sugar industry in the past and is likely to remain, at any rate potentially, one of the main competitors in the future, with a possible price level for sugar as indicated above. It is, therefore, probable that the Indian sugar industry will again require protection against the imports of sugar from Java in about two years' time. There may also possibly be competition in the Indian sugar trade by imports of sugar from other countries as well when the world sugar industry will have achieved its full production, but we have not got any definite data at the present moment to indicate the source or the extent of this competition. Since, in any case, there is, in our view, a definite probability of competition in the sugar trade setting in within a period of about two years, when the question of protection to the Indian sugar industry may again become important, we do not think it desirable that the existing protection, though unnecessary and ineffective at the present time, should be terminated. Our conclusion is reinforced by the further fact that protection of the sugar industry is, in effect, protection of the sugarcane cultivation in India, which is an integral

part of our agricultural economy. We therefore recommend the continuance of the present protection for a further period of one year. Since the Indian sugar industry is likely to require protection for some time to come, we are of the opinion that a detailed inquiry into the extent of protection necessary should be undertaken when conditions both in India and abroad become more normal. At present, we do not expect that such normality will be restored before the end of 1948. Though we are precluded by the terms of our reference from recommending the continuance of the existing protection for more than a year, we wish to draw the attention of Government to the desirability of extending the present protection for a period of two years ending 31st March 1949 and instituting a tariff inquiry during the latter half of 1948.

The present import duty on sugar.

17. The import duty on sugar is governed by item 17 of the First Schedule of the Indian Customs Tariff. The duty is made up as follows :—

(1) Rs. 6-12-0 as protective duty,

(2) Rs. 3-0-0 as the amount of countervailing import duty equal to the existing excise duty, and

(3) 20% as revenue surcharge of the total of (1) and (2) above.

In effect, the total duty works out to Rs. 11-11-1/5 per cwt.

Sumary of conclusions and recommendations.

18. Our conclusions and recommendations are summarised as under :—

(*i*) In view of the great leeway to be made up by the Indian sugar industry before achieving parity of competitive efficiency with the sugar industry in Java and other foreign countries, we endorse the recommendation of the Sugar Panel that the present Central Government grant to the Indian Central Sugarcane Committee of 1 anna per cwt. of sugar from the excise duty should be increased to 4 annas per cwt. (Paragraph 11).

(*ii*) The Tariff Board of 1937 recommended that the possibilities of establishing industries subsidiary to the sugar industry should be properly investigated. We attach great importance to this recommendation and suggest that all facilities should be given to the sugar factories to establish these subsidiary industries. (Paragraph 11).

(*iii*) The present shortage of sugar in the world as a whole may continue at least for another year, and it is expected that the position may become somewhat easier towards the end of 1947-48. (Paragraph 13).

(*iv*) Since the requirement of sugar in the country has been estimated at between 16,00,000 and 18,00,000 tons per annum during the period ending 1950, and since the present production in the country is in the neighbourhood of 11,00,000 tons, there does not appear to be any great scope for export of sugar from India in the near future, except in small quantities which are permitted for special reasons. (Paragraph 14).

(*v*) We feel that the sugar industry might run the risk of being undercut by lower-priced imports of Java (or other foreign) sugar after one or two years and that the protection to the industry, which is at present unneces-

sary and ineffective, might again become important after one or two years. (Paragraph 15).

(*vi*) We recommend the continuance of the present protection for a further period of one year. Since in our opinion, the Indian sugar industry is likely to require protection for some time to come, we are of the opinion that the detailed inquiry into the extent of protection necessary should be undertaken when conditions both in India and abroad become more normal. At present, we do not expect that such normality will be restored before the end of 1948. Though we are precluded by the terms of our reference from recommending the continuance of the existng protection for more than a year, we wish to draw the attention of the Government to the desirability of extending the present protection for a period of two years ending 31st March 1949 and instituting a tariff inquiry during the latter half of 1948. (Paragraph 16).

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SHANMUKHAM CHETTY,
President.

C. C. DESAI,
Member-Secretary.

H. L. DEY,
Member.

S. C. AGGARWAL,
Deputy Secretary.

BOMBAY
21st February, 1947.

APPENDIX I.

(*Vide* PARAGRAPH 1).

No. 134-T (36)/46.

GOVERNMENT OF INDIA

DEPARTMENT OF COMMERCE.

New Delhi, the 19th December 1946.

FROM

B. N. BANERJI, ESQ., M.B.E.,
Deputy Secretary to the Government of India.

To

THE MEMBER-SECRETARY,
Indian Tariff Board,
Caltex House, Ballard Estate,
BOMBAY.

SIR,

I am directed to address you on the question of continuance of protection to certain old established industries and particularly the sugar, paper and wood pulp, cotton textile manufacturing, and iron and steel manufacturing industries which had been granted tariff protection on the basis of recommendations made by previous Tariff Boards. As you are no doubt aware, the period for which protection had been granted to these industries was due to expire during the early years of the war, but had to be extended from time to time, and the last extension agreed to by the Legislature is due to expire on the 31st March 1947. Government have, therefore, to decide urgently as to their future course of action in respect of continuation of protection to these industries beyond the 31st March 1947 so that the necessary legislation could be undertaken during the forthcoming Budget Session of the Indian Legislature.

2. The most suitable method of coming to a decision on this question would undoubtedly be to request the Tariff Board to investigate the claims of these industries to continued enjoyment of protection at the existing, or at a reduced or enhanced scale. The Government of India are advised, however, that many of the economic uncertainties which made it impossible to conduct such an enquiry during the war are still continuing, and they are therefore considering whether any alternative method could be found for evaluating in a summary manner, and pending a full-dress tariff investigation which has to be postponed to a later date, the necessity or otherwise of continuing the existing measures of protection afforded to these industries beyond the 31st March 1947. While the Government of India consider that there is a good deal of force in the argument that conditions have not yet sufficiently returned to normal for a reasonably accurate appraisement of domestic cost and foreign prices, they feel at the same time that many of the already protected industries have reached a stage where the continuance of protection at the existing level merely results in the grant of an excessive margin of profit to the manufacturing interests at the direct expense of the consumer.

3. I am therefore to request you to be so good as to place this matter before the Tariff Board and let Government have their advice as to what would be the best method of proceeding further in this matter. In making their recommendations, the Board will no doubt bear in mind the interests both of the manufacturers and the consumers and will therefore consider the advisability of having a summary discussion with the representatives of the industries mentioned earlier in the letter and other interested parties. As a decision has to be taken well before the commencement of the Budget Session in order to enable Government to introduce the necessary legislative measures in time, it will be greatly appreciated if the Board could forward their considered opinion as regards the degree of protection to be continued to these four industries, by the end of January, although this may involve some delay in completing the Board's programme relative to the wartime industries.

I have the honour to be,

SIR,

Your most obedient servant,

(Sd) B. N. BANERJI,

Deputy Secretary to the Government of India.

APPENDIX II.

(*Vide* PARAGRAPH 1)

GOVERNMENT OF INDIA.

DEPARTMENT OF COMMERCE.

New Delhi, the 20th January 1947.

RESOLUTION.

Tariffs.

No. 28-T (6)/46—In their Resolution in the Department of Commerce No. 218-T (55)/45, dated the 3rd November 1945, the Government of India announced the setting up of a Tariff Board to investigate claims for assistance or protection received from industries which have been started or developed in war time.

2. Government have also under consideration the question of continuance of protection to certain industries which were established before the war and were granted tariff protection on the basis of recommendations made by previous Tariff Boards. They have decided to request the Tariff Board, set up under the Resolution referred to in the preceding paragraph, to investigate and advise them with regard to the claims of such industries.

3. Government recognise that, in the present abnormal conditions, it would not be possible to formulate a long term tariff policy in respect of the well established industries. The Tariff Board is accordingly requested to hold summary inquiries and advise Government whether, in present circumstances, protection at the existing or at a different scale, should be granted for a further year after the 31st March 1947 to the following industries :—

(1) Sugar ;
(2) Paper and wood pulp ;
(3) Cotton Textiles ;
(4) Iron and Steel.

(Sd.) N. R. PILLAI,

Secretary to the Government of India.

APPENDIX III.

(*Vide* PARAGRAPH 2).

List of producers and others invited to attend the Sugar Conference.

PRODUCERS.

1. The Indian Sugar Mills Association, Calcutta.
2. Bengal Sugar Mills Association, Calcutta.
3. Deccan Sugar Factories Association, Bombay.
4. Indian Sugar Syndicate, Ltd., Cawnpore.
5. Indian Sugar Producers' Association, Cawnpore.
6. South Indian Sugar Mills Association, Madras.

MERCHANTS AND IMPORTERS.

1. Bombay Sugar Merchants' Association, Bombay.
2. Cawnpore Sugar Merchants' Association, Cawnpore.

OFFICIALS.

1. Sir Datar Singh, Vice Chairman, Imperial Council of Agricultural Research, New Delhi.
2. Mr. N. T. Mone, I.C.S., Sugar Controller, Government of India.
3. Mr. K. B. Bhatia, I.C.S., Secretary, Agricultural Department, U.P., Lucknow.
4. Mr. B. B. Singh, I.C.S., Chairman, Sugar Commission, U.P., & Bihar, Cawnpore.
5. Mr. S. C. Roy, Director, Imperial Institute of Sugar Technology, Cawnpore.
6. Mr. N. L. Dutt, Government Sugar Cane Expert Coimbatore.
7. Mr. A. D. Pant, Cane-Commissioner, U.P., Lucknow.
8. Cane Commissioner, Bihar, Patna.
9. Secretary, Sugar Control Board, U.P., Lucknow.
10. Secretary, Sugar Control Board, Bihar, Patna.

OTHERS.

1. Sir Fazal Ibrahim Rahimtoola, Ismail Building, Hornby Road, Bombay.
2. Lala Harsahai Gupta, P.O. Bilari, U.P.
3. Mr. N. C. Mehta, Kamla Cottage, Juhu, Bombay.
4. Mr. Lalchand Hirachand, Construction House, Bombay.
5. Mr. R. D. Bose, Secretary, Indian Central Sugar Cane Committee, New Delhi.
6. Sheik Mohammad Jilani, President, Khandasari Manufacturers' Association, Pilibhit, U.P.
7. Chowdhury Mukhtar Singh, Daurala Sugar Works, Ltd., Daurala (Meerut).

APPENDIX IV.

(*Vide* PARAGRAPH 2).

List of Producers and others who attended the Sugar Conference.

PRODUCERS.

Mr. Lalchand Hirachand.	Representing Indian Sugar Mills Association, Calcutta.
Lala Gurusharan Lal	
Mr. Krishna Deva and Mr. J. S. Mehta (Secretary)	
Mr. D. M. Dahanukar	
Mr. K. G. Somaiya and Mr. D. V. Kelkar (Secretary)	Representing Deccan Sugar Factories' Association, Bombay.
Mr. G. N. Todd., (c/o Parry & Co., Madras).	Representing South Indian Sugar Mills Association, Madras.
Mr. B. T. Kempanna	
Mr. B. P. Dalmia	Representing Bengal Sugar Mills Association, Calcutta.
Mr. B. B. Chatterjee	
Mr. R. P. Nevatia	Representing Indian Sugar Syndicate Ltd., Cawnpore.
Sheik Mohammad Jilani	Representing Khandsari Manufacturers' Association, Pilibhit, U.P.

MERCHANTS AND IMPORTERS.

Sheth Maneklal Ujamshi Sheth Jagjivan Ujamshi Mulji	Representing Bombay Sugar Merchants' Association, Bombay.

OFFICIALS.

Mr. N. T. Mone, I.C.S.	Sugar Controller, Government of India, New Delhi.
Mr. B. B. Singh, I.C.S.	Chairman, Sugar Commission, U.P. & Bihar, Cawnpore.
Mr. S. C. Roy	Director, Imperial Institute of Sugar Technology, Cawnpore.

NON-OFFICIALS.

Sir Fazal Ibrahim Rahimtoola	Bombay.
Mr. N. C. Mehta	Bombay.
Mr. H. Robinson	H. M. Trade Commissioner's office, Bombay.
Mr. R. D. Bose	Secretary, Indian Central Sugar Cane Committee, New Delhi.

APPENDIX V.

(*Vide* PARAGRAPH 11).

Number of vacuum pan sugar factories working in India, including States, and production of sugar in vacuum pan factories, Gur refineries and Khandsari from 1931-32 to 1945-46 and estimate of production for 1946-47.

Year (November—October).	No. of Vacuum pan factories working in India	Vacuum pan factory production (Nov.—Oct.)	Sugar refined from gur. (Jan.—Dec.)	Khandsari (Conjectural estimates) (Nov.—Oct.).	Total production
		Tons.	Tons	Tons	Tons
1931-32	32	158,781	69,539	250,000	478,320
1932-33	57	290,177	80,106	275,000	645,283
1933-34	112	454,000	64,900	200,000	718, 00
1934-35	130	578,100	43,500	150,000	771,600
1935-36	137	932,100	47,900	125,000	1,105,000
1936-37	137	1,111,400	25,600	100,000	1,237,000
1937-38	136	930,700	17,200	125,000	1,072,900
1938-39	139	650,800	14,700	100,000	765,500
1939-40	145	1,241,700	26,500	125,000	1,393,200
1940-41	148	1,095,400	44,700	200,000	1,340,100
1941-42	140	778,100	20,400	100,000	898,500
1942-43	150	1,070,700	7,800	214,000	1,292,500
1943-44	151	1,216,400	7,700	150,000**	1,374,100
1944-45*	140	953,500	6,030	75,000	1,034,530
1945-46	145	944,800	6,000	75,000	1,025,800
1946-47	146	1,000,000	6,000	60,000	1,066,000*** (Estimates)

*Vide Indian Trade Journal, dated 28th February 1946 and 20th June, 1946 and vide Indian Trade Journal (Supplement) dated 10th October, 1946.

**The Sugar Controller's estimate of Khandsari production for 1943-44 is smaller.

***Vide Indian Sugar Industry Annual for 1945-46 by Gandhi & Co., Bombay.

APPENDIX VI.

(*Vide* PARAGRAPH 13).

Statement of imports of sugar by sea into British India.*

	Quantity (Tons). (Year—April to March).			Value (Rs.).		
	Imports. (1)	Re-exports. (2)	Net Imports. (3)	Imports. (4)	Re-exports. (5)	Net Imports. (6)
1936-37†	(a) 23,075 (19,149)	9,096	13,979	23,91,980 (19,67,039)	14,58,876	9,33,104
1937-38	13,715	1,686	12,029	17,61,627	3,92,782	13,68,845
1938-39	32,715	49	32,666	40,92,048	9,938	40,82,110
1939-40	251,707	24,148	227,559	325,33,763	55,45,502	269,88,261
1940-41	18,778	5,075	13,703	34,68,406	16,19,520	18,48,886
1941-42	48,637	27,304	21,333	106,69,234	70,93,629	35,75,605
1942-43	563	29,255	..	1,86,759	106,93,213	..
1943-44	21	195	..	12,923	1,29,108	..
1944-45	..	..	..	1,864	..	..
1945-46	5	313	..	1,103	2,12,373	..

*Excluding sugar-candy and molasses.

†Including the share of Burma. The figures within brackets show the quantity and value of imports exclusive of Burma's share.

(a) Sugar candy not shown separately before 1937-38.

Source: Sea-Borne Trade Returns.

APPENDIX VII.

(Vide PARAGRAPH 13).

Statement showing the total quantity and value of sugar †imported into British India by sea since 1936-37 from the principal countries of consignment.

	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.	1944-45.	1945-46.
I.—*Quantity of Imports from—*										
1. U. K.	231	271	4,211	13,529	29	13	2	4	..	..
2. Burma	..	6	2,169	1,844	2	..	..	..	..	..
3. Straits Settlements ..	127	4	2	284	62	1,788	..	..	..	..
4. Hongkong	3,103	1,987	2,968	2,744	2,424	1,053	560	..	..	..
5. Netherlands	1,649	785	1,350	1,718	..	..	..	..	..	..
6. Belgium	45	46	62	20	5	..	..	..	..	..
7. Java	15,022	10,293	24,510	2,33,163	16,118	39,690	..	..	..	..
8. Japan	633	468	15	7	..	..	..	..	..	..
9. China	1,907	523	391	1,056	227	66	..	..	..	..
10. Portuguese East Africa	..	..	..	668	450	6,271	..	..	..	..
Total Imports (all countries) ..	19,149*	14,389	35,679	255,037	19,319	48,884	567	21	..	35

II.—Value of Imports From—										
1. U. K.	1,13,722	1,11,285	5,95,632	19,24,552	18,749	9,230	670	1,627	..	..
2. Burma	..	1,342	3,40,569	3,31,700	1,026	..	..	..	..	..
3. Straits Settlements ..	23,852	866	348	48,823	9,115	4,30,275	155	..	..	..
4. Hongkong	3,94,547	2,73,298	4,67,254	5,00,710	5,96,455	3,25,331	1,84,001	..	..	..
5. Netherlands	1,76,337	87,740	1,67,505	2,02,137	..	..	..	..	..	..
6. Belgium	7,674	8,237	10,778	5,055	2,266	..	..	..	..	..
7. Java	13,08,758	12,28,718	29,10,071	2,97,44,605	28,36,777	86,45,552	..	..	..	..
8. Japan	78,546	53,329	3,398	1,724	..	..	..	..	..	..
9. China	2,56,778	94,009	61,292	1,94,824	63,501	21,971	..	..	..	..
10. Portuguese East Africa	..		25	2,02,694	81,083	13,19,592	..	..	..	..
Total value of imports (all countries.)	19,67,156*	18,60,114	45,57,548	3,31,57,767	36,10,089	1,07,54,384	1,87,314	12,931	..	37,723

* Excluding the share of Burma.

† Including sugar candy and molasses.

NOTE.—Import figures of sugar candy and molasses from each of the above countries are not available and hence could not be separated from total.

APPENDIX VIII.

(*Vide* PARAGRAPH 15).

Statement of Index Numbers of Prices of Wheat, Rice, Sugarcane, Sugar and Gur.

MARKET PRICES.

		Wheat (Hapur).	Rice (Patna).	Sugarcane (U.P. & Bihar).	Sugar (U.P. & Bihar).	Gur (Muzaffar-nagar).
August 1939 (Base) ..	INDEX PRICE	100 (2-9-9)	100 (3-1-0)	100 (0-7-0)	100 (10-1-0)	100 (8-1-0)
September 1939 ..		113 (2-15-3)	106 (3-4-0)	100 (0-7-0)	108 (10-14-0)	104 (8-5-7)
September 1940 ..		123 (3-3-6)	140 (4-5-0)	79 (0-5-6)	91 (9-2-0)	56 (4-8-0)
September 1941 ..		155 (4-0-9)	169 (5-3-0)	71 (0-5-0)	96 (9-10-0)	47 (3-12-0)
September 1942 ..		191 (5-0-0)	244 (7-8-0)	114 (0-8-0)	122 (12-4-0)	118 (9-6-6)
September 1943 ..		522 (13-10-0)	571 (17-8-0)	143 (0-10-0)	139 (14-0-0)	143 (11-5-0)
September 1944 ..		373 (9-12-0)	391 (12-0-0)	171 (0-12-0)	147 (14-13-0)	118 (9-8-0)
September 1945 ..		392 (10-4-0) Market Price	326 (10-0-0)	205 (0-14-6)	161 (16-4-0)	102 (8-4-0)
July 1946		632 (16-8-0) Market Price	334 (10-4-0)	205 (0-14-6)	165 (16-10-10)	142 (11-8-0)

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